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ABSTRACT

This Programming Design Guide (PDG) was developed to permit the offline Job Aid for Selecting Instructional Setting, which is one of 13 job aids presently available for use with the Instructional Systems Development (ISD) model, to be available in an inquiry-type, online version. It is intended to provide computer programmers with all of the guidance necessary for them to implement the offline job aid on their computer system. The resulting online program is designed for use by instructional development personnel to assist in the selection of the appropriate instructional setting for each critical task within a Military Occupational Specialty (MOS). Inasmuch as the PDG will be used as a guide for programming on a number of computer systems which employ different programming languages, the guide is written in a program design language (PDL) format rather than in any specific programming language. The PDL is a pseudo-computer language which is used to describe the design specification for an interactive computer program to assist in the selection of instructional settings. (Author/LLS)

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RESEARCH PRODUCT 80-24b

PROGRAMMING DESIGN GUIDE FOR COMPUTER IMPLEMENTATION OF JOB AID FOR SELECTING INSTRUCTIONAL SETTING

BASIC SKILLS INSTRUCTIONAL SYSTEMS TECHNICAL AREA

DECEMBER 1979

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FOREWORD

The Computer-Based Instructional Systems Team of the US Army Research Institute for the Behavioral and Social Sciences (ARI) performs research and development in the area of educational technology that applies to military training. Of interest are methods for training individuals to develop and utilize instructional courseware in reasonable time, at acceptable cost.

This Research Product is one of a series which have been designed to support the implementation of the Instructional Systems Development Model (ISD, TRADOC Pamphlet 350-30). The ISD Model is a step-by-step procedure for the analysis, design, development, implementation, and control of military course materials. A previous effort produced manual Job Aids which are paper and pencil documents designed to provide "how to do it" guidance for the ISD Model. This document is part of a series of three developed to support the delivery of the manual Job Aids by computer. To accomplish this research, ARI's resources were augmented by contract DAHC19-78-C-0010 with the Human Resources Research Organization (HumRRO).

The contributions of personnel from ARI's Manpower and Educational System's Technical Area as well as those of Mr. Charles F. Marshall and Mr. Joseph P. Severo, Research Facilities Support Group are acknowledged. Mr. Antonio J. Alameda, HumRRO also contributed to this research effort.

The entire research project is responsive to the requirements of Army Project 2Q263743A794, FY80 Work Program.

JOSEPH ZEIDNER
Technical Director

PROGRAMMING DESIGN GUIDE FOR COMPUTER IMPLEMENTATION OF JOB AID FOR SELECTING INSTRUCTIONAL SETTING

BRIEF

Requirement:

The purpose was to develop a language to translate an existing paper and pencil Job Aid onto a computerized delivery system. The Job Aid is one of a series developed previously to support users of the Instructional Systems Development Model (ISD).

Procedure:

A Programming Design Language (PDL) was created to describe the computer functions (e.g., computer/user interactions, storage/retrieval of data, program branching, program management, and calculations) required by the Job Aids (ARI Research Products 80-13 through 80-18). The PDL was designed to communicate to the computer programmer in a language independent fashion so that the on-line or computer version of the Job Aid could be delivered by any computer.

Utilization:

The Programming Design Guide may be used by computer programmers who are tasked with programming the manual Job Aids.

TABLE OF CONTENTS

Section		Page
I	INTRODUCTION	1
II	PROGRAM DESIGN LANGUAGE	3
III	PROGRAMMING FLOWCHART	27
IV	VARIABLES USED IN THE PROGRAMMING DESIGN GUIDE	41
V	SETUP MATERIAL	45
VI	PROGRAMMING SPECIFICATIONS	47

Section I

INTRODUCTION

Job Aids[1] are being developed for the US Army Research Institute for the Behavioral and Social Sciences under contract DAHC19-78-C-0010. The Job Aids are intended to be stand alone, step-by-step procedural guides which are equally useful to individuals at all experience levels of the instructional systems development process.

This Programming Design Guide (PDG) was developed to permit the off-line Job Aid for Select Instructional Setting to be available in an inquiry-type, on-line version. It is intended to provide computer programmers with all of the guidance necessary for them to implement on their computer system the off-line job aid. The resulting on-line program will be used by instructional development personnel to assist in the selection of the appropriate instructional setting for each critical task within an MOS.

Inasmuch as the PDG will be used as a guide for programming on a number of computer systems which employ different programming languages, the Guide is written in a Program Design Language (PDL) format rather than in any specific programming language. The Program Design Language is a pseudo-computer language which is used to describe the design specification for an interactive computer program to assist in the selection of instructional settings.

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[1] Schulz, R.E. and Farrell, J.R. Job aids: Descriptive authoring flow-charts for phase I-analyze of the Instructional Systems Development model (Research Product 80-13). Alexandria, VA: US Army Research Institute, May 1980.

Schulz, R.E. and Farrell, J.R. Job aid manuals for phase I-analyze of the Instructional Systems Development model (Research Product 80-14). Alexandria, VA: US Army Research Institute, May 1980.

Schulz, R.E. and Farrell, J.R. Job aids: Descriptive authoring flow-charts for phase II-design of Instructional Systems Development model (Research Product 80-15). Alexandria, VA: US Army Research Institute, May 1980.

Schulz, R.E. and Farrell, J.R. Job aid manuals for phase II-design of the Instructional Systems Development model (Research Product 80-16). Alexandria, VA: US Army Research Institute, May 1980.

Schulz, R.E. and Farrell, J.R. Job aids: Descriptive authoring flow-charts for phase III-develop of the Instructional Systems Development model (Research Product 80-17). Alexandria, VA: US Army Research Institute, May 1980.

Schulz, R.E. and Farrell, J.R. Job aid manuals for phase III-develop of the Instructional Systems Development model (Research Product 30-18). Alexandria, VA: US Army Research Institute, May 1980.

It will be necessary for you to translate the Program Design Language in the Guide into the programming language (e.g., BASIC, FORTRAN, COBOL, etc.) used at your installation.

The PDG is organized into six sections as described below. Study each of these sections carefully before you begin programming.

SECTION I: Introduction

SECTION II: Programming Design Language. This section describes the commands used in the Guide and provides guidance and examples of how each is used.

SECTION III: Programming Flowchart. The flowchart included in Section III may be useful to you as an overview of the programming requirements for the entire program.

SECTION IV: Variables Used in the PDG. This section provides an alphabetical listing of all of the variables used in the program. Any variable can be renamed to better fit your programming language.

SECTION V: Setup Material. In this section some variables are set to predetermined values and various strings and arrays are established.

SECTION VI: Programming Specifications. Section VI is the heart of the PDG. It contains the labels, commands, tags and comments necessary for the programming of the Select Instructional Settings Job Aid.

In Section VI of this PDG reference is made to a document, Supplemental Guide: Sources of Information for On-line Implementation of ISD I.5 Select Instructional Setting.[1] The Supplemental Guide should be made available to instructional development personnel who use the on-line version of the Job Aid.

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[1]Schulz, R.E. *Supplemental Guide: Sources of Information for On-line Implementation of ISD I.5 Select Instructional Setting* (ARI Research Product 80-24c), Alexandria, VA: US Army Research Institute for the Behavioral and Social Sciences, in press.

Section II

PROGRAM DESIGN LANGUAGE

The Program Design Language (PDL) is a pseudo-computer language which may be used to describe the design specifications for certain classes of interactive computer programs. At present there are the following commands which are described on the pages indicated.

Commands	Page
ACCEPT	24
$ACCEPT	25
ARRAY	8
CALL	16
CLEAR	21
DECIDE	26
GOTO	13
ITERATE	17
NEXT	16
ON	14
RETURN	16
SET	10
$SET	11
SHOW	19
SHOWB	20
STOP	15
$STRING	9
WAIT	23

PDL SYNTAX

The PDL is a statement-oriented language. In general, a statement consists of four fields: label, command, tag and comment. The label and comment fields are optional. Comments are delimited by a string of two or more asterisks. Examples of valid PDL statements are:

```
LBL     SHOW    WHAT IS YOUR NAME?    ****WRITE ON USER'S TERMINAL
        #ACCEPT     $NAME    ,   40    ****ALLOW UP TO 40 CHARACTERS
        SHOW    YOUR NAME IS /$NAME/
        STOP
```

Implementation of Specific Text

Since computer systems differ among installations, the PDL includes the ability to specify where a PDL phrase should be consistently replaced with a phrase appropriate for a specific computer system. The PDL phrase is enclosed in a pair of # signs.

Example

```
SHOW     #PRESS NEXT# TO CONTINUE

#PRESS NEXT#  means that the user signals readiness to proceed
              by pressing a function key or typing a command.
```

In one implementation, this message might be "PRESS CARRIAGE RETURN to continue."

For another system, the message might say: "HIT CARRIAGE RETURN to continue."

Naming Conventions

Because the PDL is a pseudo-computer language, there are no restrictions on labels and variable names; their length is unlimited. By convention, all commands and variable names associated with alphanumeric characters are preceeded by a $. This lack of restrictions should promote the use of meaningful names for labels and variables.

Example

```
$SET      $MYNAME = "FRANCOIS"
```

Array Declarations and Data Manipulations

There are two basic data types in the PDL--numeric integers and alphanumeric strings. Instances of either data type may exist as constants, single variables or arrays. There are four commands used for array declaration and data manipulation: ARRAY, $STRING, SET, and $SET.

ARRAY arrayname (dimensions)

The ARRAY command specifies the existence of an arra, of integer values.

Examples

ARRAY ISR-Question (14,24)	****specifies an array of 14 rows with 24 columns per row
ARRAY XYZ (10)	****specifies a vector of 10 elements

```
$STRING    $stringname , stringsize
$STRING    $stringname (dimensions) , stringsize
```

The $STRING command specifies the existence of an alphanumeric character string or array of character strings. The "stringsize" is the maximum number of characters contained in the string or element of a string array.

Examples

```
$STRING   $NAME , 30          ****specifies a string of up to
                                  30 characters
$STRING   $TASKS(24) , 40     ****specifies a set of 24 strings
                                  of 40 characters each
```

SET varname = { varname / constant } [{ + / - / * / / } { varname / constant }]

The SET command allows simple arithmetic operations to be performed. Variable references may also be references to array elements.

Examples

```
SET  X  =  12
SET  X  =  Y + 3
SET  Y  =  3 * Z
SET  Table(1) = TBL(1,3) + TBL(4,Z)
SET  Count  =  TABLE(I)
```

```
$SET   $string  =  "alphanumeric constant"
$SET   $string  =  $string2
```

The $SET command is used to place a value in a string variable. Variable references may also be references to string array elements.

When the $SET command is used with strings of unequal length, the string on the right, when assigned to the string on the left, is either padded with blanks or truncated in order to correspond to the length of the string on the left.

Examples

```
$SET   $NAME  =  "HARRY"
$SET   $NAME2  =  $NAME
$SET  $FIRSTNAME  =  $NAMES(1)
```

Sequence Control

There are eight PDL commands that are used to control the flow of the program:

ITERATE and NEXT for loop control,

GOTO, GOTO. . . IF, ON. . .GO TO . . . CALL . . . RETURN for control of unconditional and conditional program branching, and

STOP to halt processing.

GOTO label

GOTO label IF condition

The GOTO command transfers control to the statement having the corresponding label. The second form of the command transfers control only if the specified condition is met. A test condition is expressed as follows:

varname { = | # | < | <= | > | >= } { varname | constant }

or

$stringname { = | # } { $stringname | constant }

Examples

```
GO TO BLOCK 12
GO TO BLOCK 12  IF COUNT = 19
GO TO BLOCK 12  IF COUNT >  MAXCOUNT
GO TO BLOCK 12  IF $NAME = "FRED"
GO TO BLOCK 12  IF $NAME = $NAME2
```

ON varname GOTO label, label, . . . , label

This command structure causes a conditional transfer of control according to the value of the specified variable. A value of one causes control to transfer to the first label. A value of two corresponds to the second label, and so forth. If the value of the given variable is less than one or greater than the number of labels, the next sequential statement is executed.

Example

```
ON X GOTO BLOCK3, BLOCK4, BLOCK5, BLOCK6
```

STOP

The STOP command terminates a PDL program.

CALL label

RETURN

The CALL command jumps program control to subroutine.

The RETURN command returns program control to command following the CALL statement.

ITERATE index, first value, last value [,increment]

.

.

.

The ITERATE command specifies the beginning of an iterative loop structure. The variable "index" is first set to the value "first value." Subsequent commands are processed in the normal manner, until a "NEXT index" command is encountered. The loop is then restarted with the variable "index" first having the value of "increment" added to it. The increment value defaults to one if unspecified. The loop terminates when the value of "index" becomes greater than "last value." Control then transfers to the next command after "NEXT index."

Examples

```
ITERATE  I , 1 , 10
.
.
.
NEXT  I

ITERATE J , 1 , 9 , 2          ****J will be 1, 3, 5, 7 and 9
.                                  during five loop passes.
.
.
NEXT J
```

Terminal Output

The PDL has three commands for displaying text to the user: SHOW, SHOWB, and CLEAR. Although the PDL makes no assumptions about the type of terminal available, many systems use CRT screens. For this reason, commands such as CLEAR and SHOWB are included in the PDL. For hardcopy terminals, appropriate spacing should be substituted in order to format the text.

SHOW text

SHOW (text label)

The SHOW command displays text at the user's terminal. The text to be displayed may either be contained in the command itself or be referred to by an indirect label. The values of variables may be imbedded in the body of a block of text by enclosing references to the variables in a pair of slashes.

Examples

```
SHOW  This is a sentence.
SHOW  The value of variable fred is /fred/.
SHOW  (textl)                    ****textl is the label associated with a
                                     block of text
```

SHOWB text

SHOWB (text label)

The SHOWB command is the same as the SHOW command except that the text associated with the command B to be displayed on the "bottom" of the user's terminal, if possible. SHOWB is generally used to display references, footnotes, and so forth. The manner in which SHOWB is differentiated from SHOW will depend on terminal hardware considerations for any given computer system.

Example

SHOWB Guide reference page _ _.

CLEAR

The CLEAR command indicates that the user's CRT screen should be blanked, if possible. For hardcopy continuous form terminals, the CLEAR command may generate several linefeed characters to indicate framing of the text.

Keyboard Input

The PDL assumes the existence of an alphanumeric keyboard for user input. There are four commands in the PDL for processing keyboard input: WAIT, ACCEPT, $ACCEPT, and DECIDE. Any given user input may be a number, a string of characters, or one of the special functions, NEXT, BACK, or HELP. For example, in one implementation, the user presses "Carriage Return" for NEXT, types "B" or "BACK" followed by "Carriage Return" for BACK, and types "H" or "HELP" followed by "Carriage Return" for HELP. The user should be made aware of when HELP and BACK are available. If HELP or BACK are requested when unavailable the user should be made aware of the non-availability.

WAIT [backlabel] [helptext label] [,clear]

The WAIT command specifies that user input is expected. The user has three options available to him in the general case: NEXT, BACK and HELP. "NEXT" causes the next command after the WAIT to be obeyed. "BACK" causes control to transfer to the command associated with "backlabel," if specified. "HELP" causes the text associated with "helptext label" to be printed at the user's terminal.

Examples

```
WAIT
WAIT  BLOCK7
WAIT  BLOCK7, (advice text)
WAIT      , (advice text)
WAIT  BLOCK7 , (advice text, CLEAR)  ****clear the screen before
                                          showing help text
```

ACCEPT varname, lowbound, highbound [backlabel] [,(helptext label[,clear])]

The ACCEPT command specifies that a numeric input is expected from the user. The value must be between "lowbound" and "highbound." An error message is printed if the given value is out of range. The arguments "backlabel" and "helptext label" are used as documented for the WAIT command.

Examples

```
SHOW  What percentage of soldiers perform this task?
ACCEPT  Perform-Percentage , 1 , 100 , Block 4
ACCEPT  AGE, 1 , 200 , , (Hint)
```

$ACCEPT $stringname , maximum length [,backlabel] [,(helptext label
[,clear])]

The $ACCEPT command is used to accept alphanumeric character input from the user. The string entered must be between zero and "maximum length" characters in length. The arguments "backlabel" and "helptext label" are used as documented for the WAIT command.

Examples

```
$ACCEPT  $NAME , 30
$ACCEPT  $MOS , 20 , , (moshelp)
$ACCEPT  $NAMES(I), MAXNAME
```

DECIDE yeslabel , nolabel [,backlabel] [,(helptext label [,clear])]

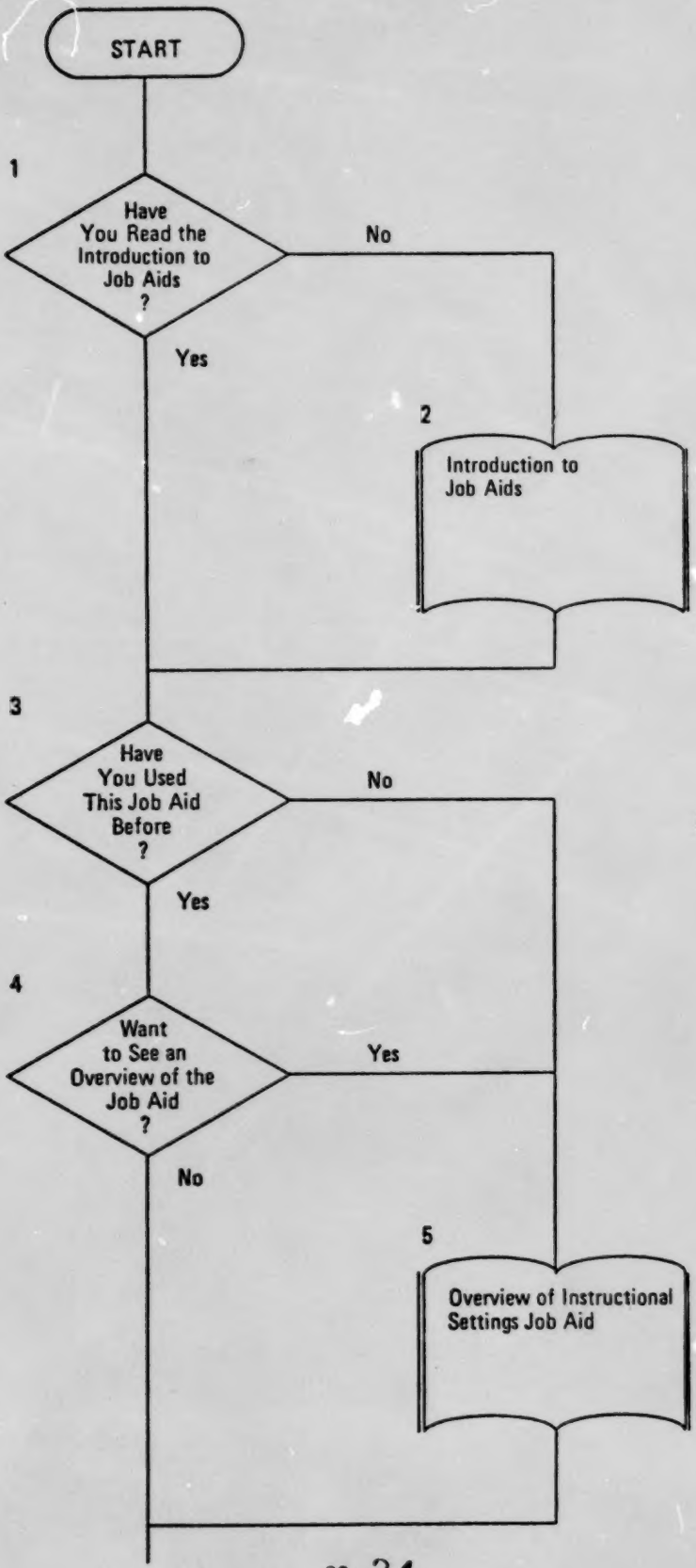
The DECIDE command is used when a yes or no response is expected from the user. A response of yes or no causes control to transfer to the corresponding label. If neither response is made, a prompting message is given to the user. The arguments "backlabel" and "helptext label" are used as documented for the WAIT command.

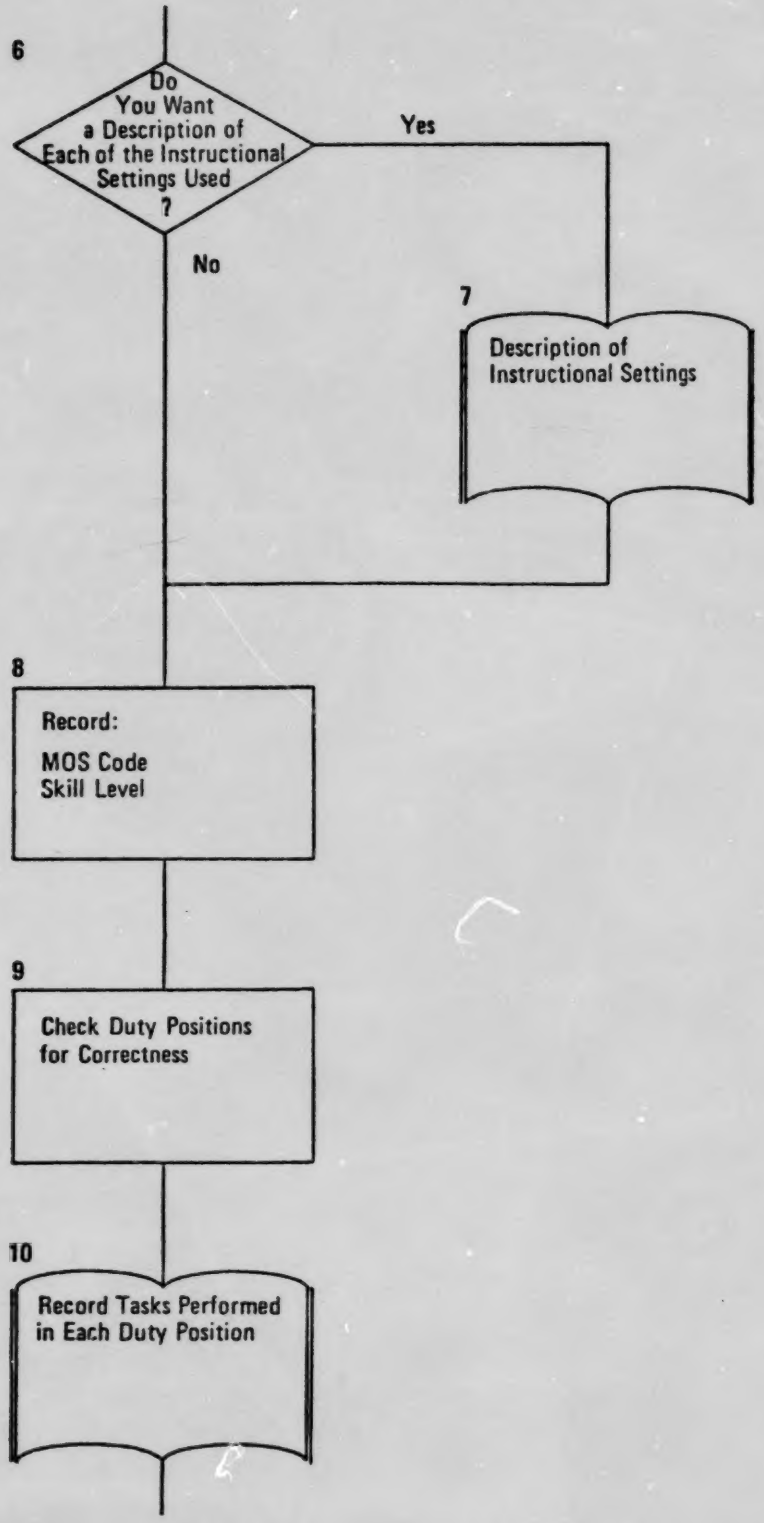
Examples

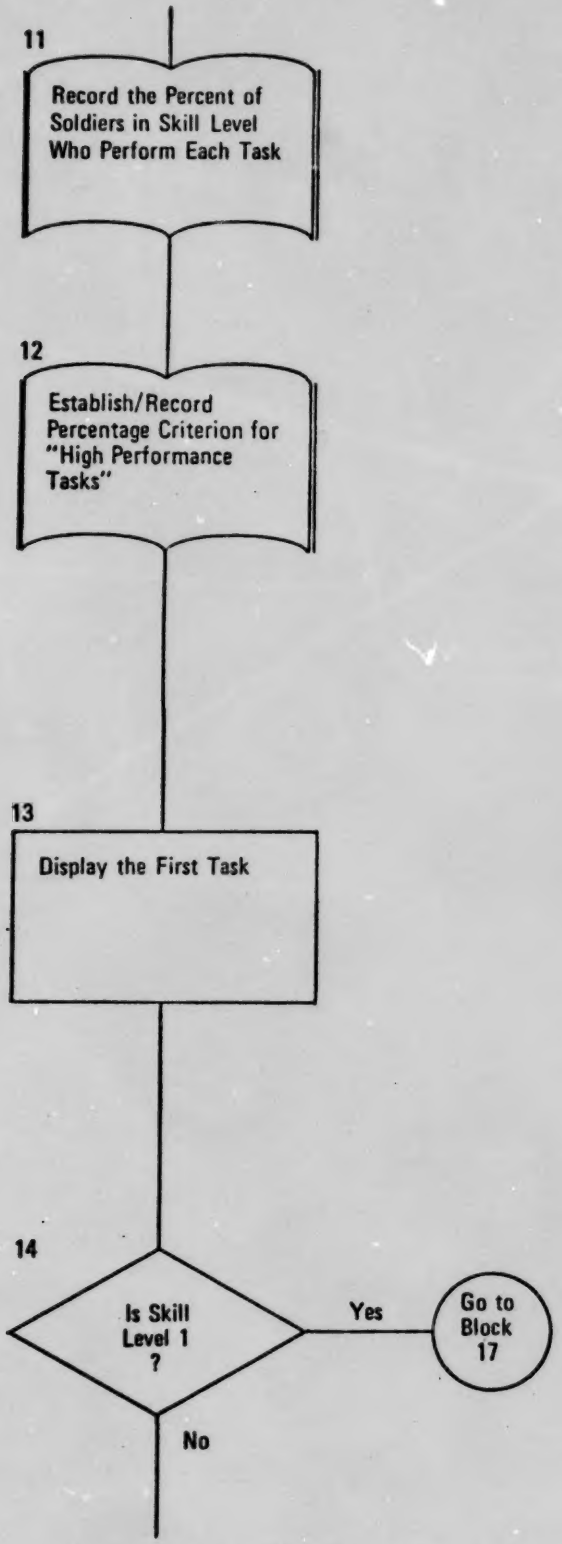
```
DECIDE  DOIT , SKIPIT , REVIEWIT , (ADVISEUSER)
DECIDE  OK , NO
```

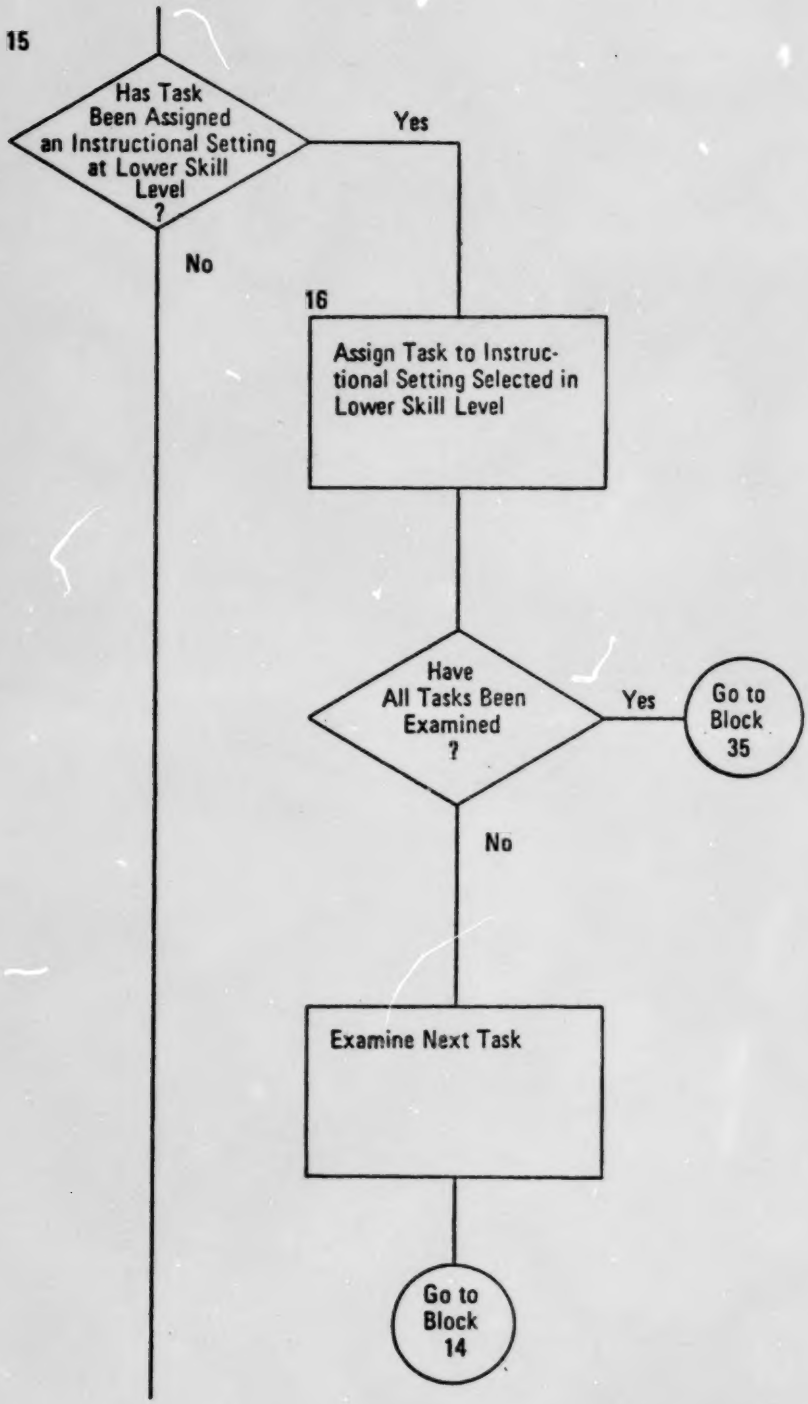
Section III

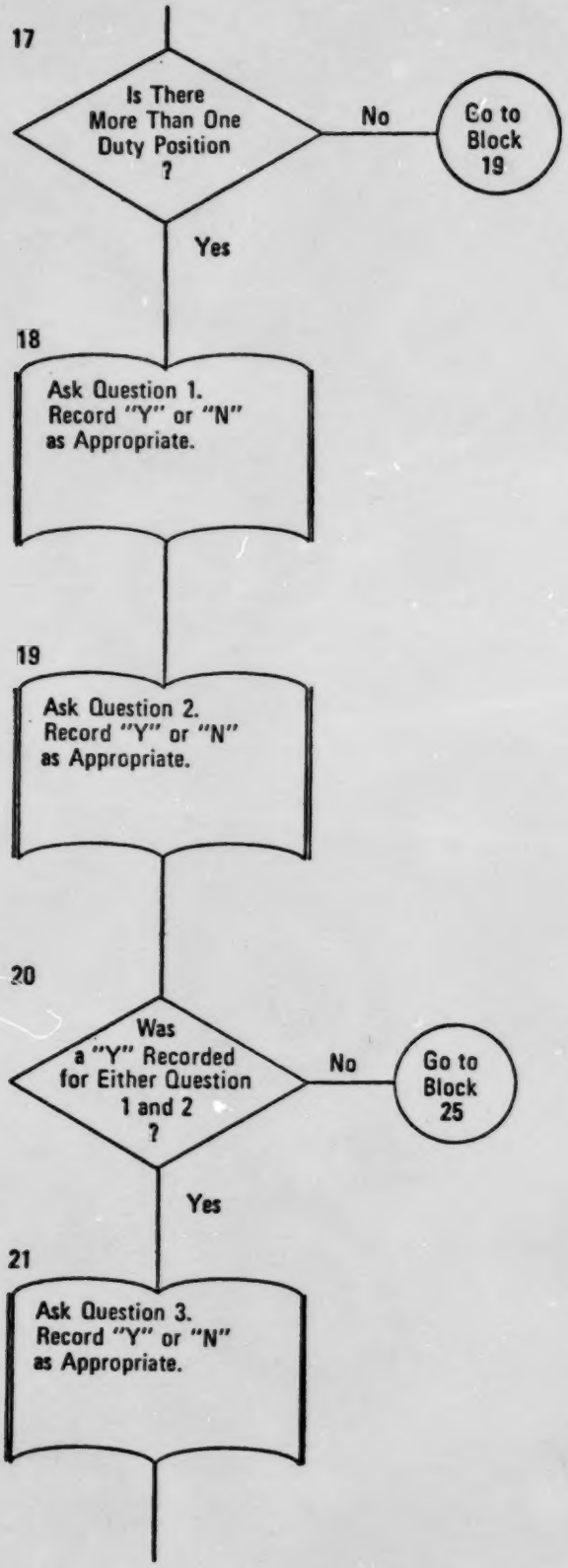
PROGRAMMING FLOWCHART

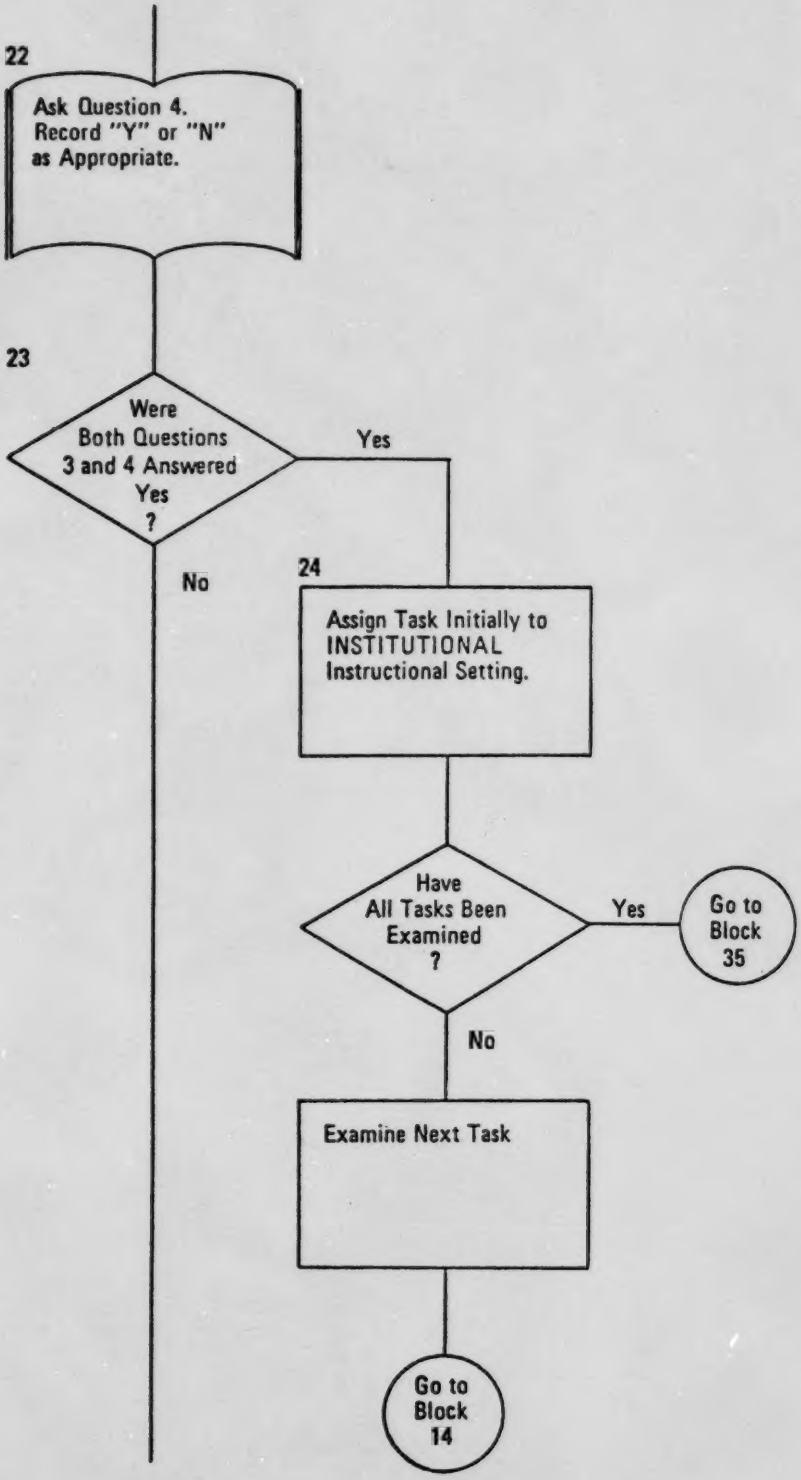

START
1
Have You Read the Introduction to Job Aids ?
No
Yes
2
Introduction to Job Aids
3
Have You Used This Job Aid Before ?
No
Yes
4
Want to See an Overview of the Job Aid ?
Yes
No
5
Overview of Instructional Settings Job Aid

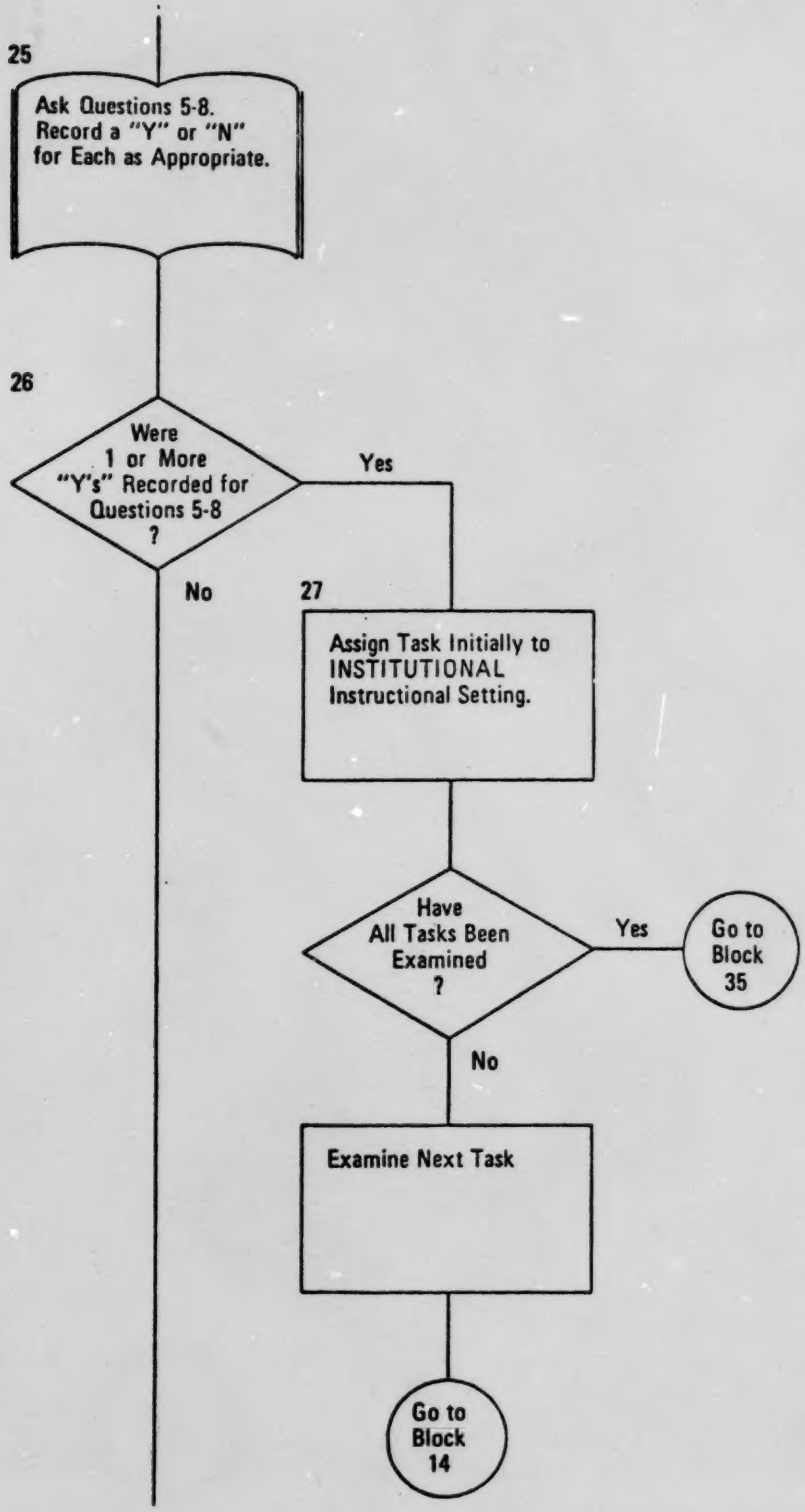

6
Do You Want a Description of Each of the Instructional Settings Used ?
Yes
No
7
Description of Instructional Settings
8
Record:
MOS Code
Skill Level
9
Check Duty Positions for Correctness
10
Record Tasks Performed in Each Duty Position

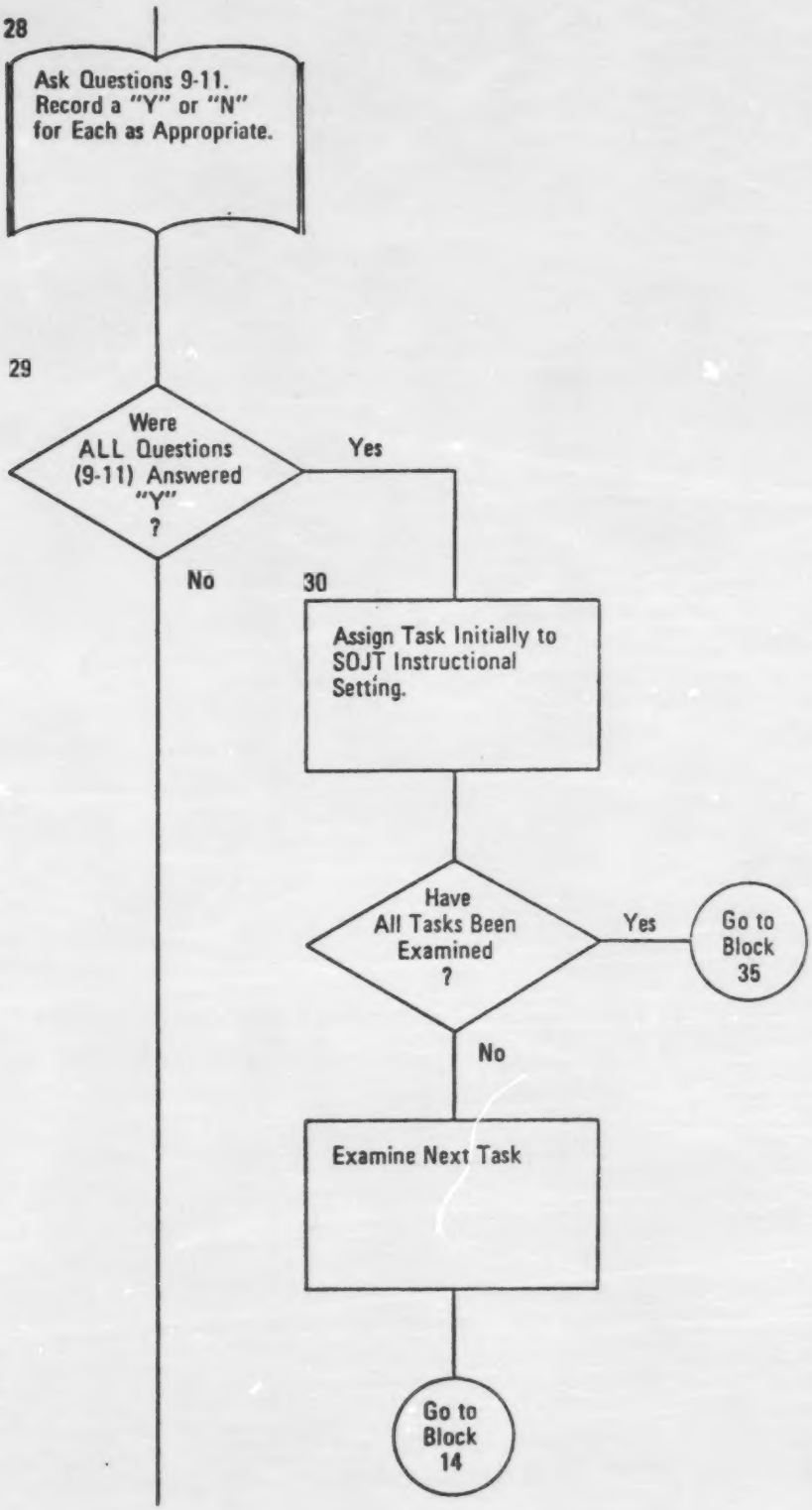

11
Record the Percent of Soldiers in Skill Level Who Perform Each Task
12
Establish/Record Percentage Criterion for "High Performance Tasks"
13
Display the First Task
14
Is Skill Level 1 ?
Yes
Go to Block 17
No

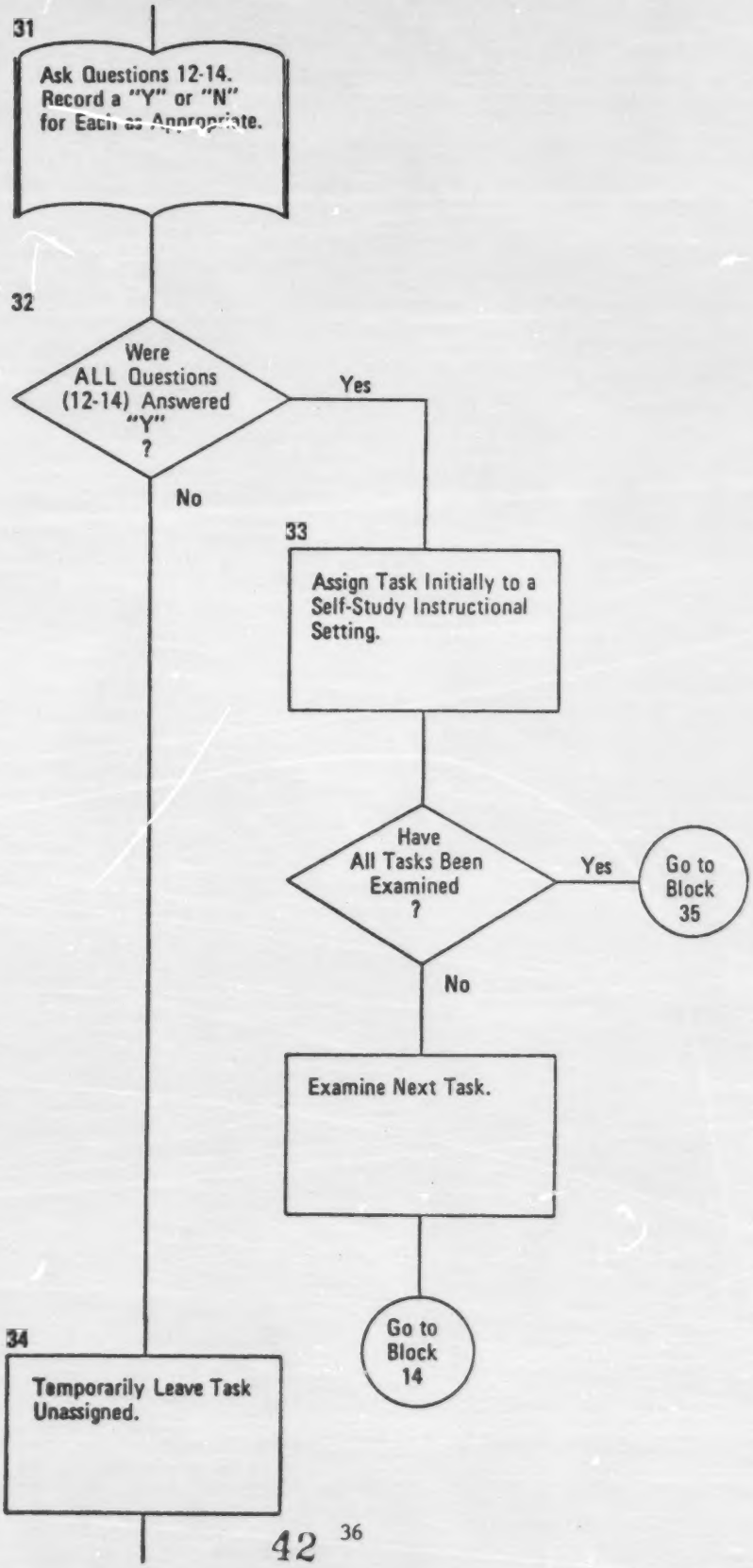

15
Has Task Been Assigned an Instructional Setting at Lower Skill Level ?
Yes
No
16
Assign Task to Instructional Setting Selected in Lower Skill Level
Have All Tasks Been Examined ?
Yes
Go to Block 35
No
Examine Next Task
Go to Block 14

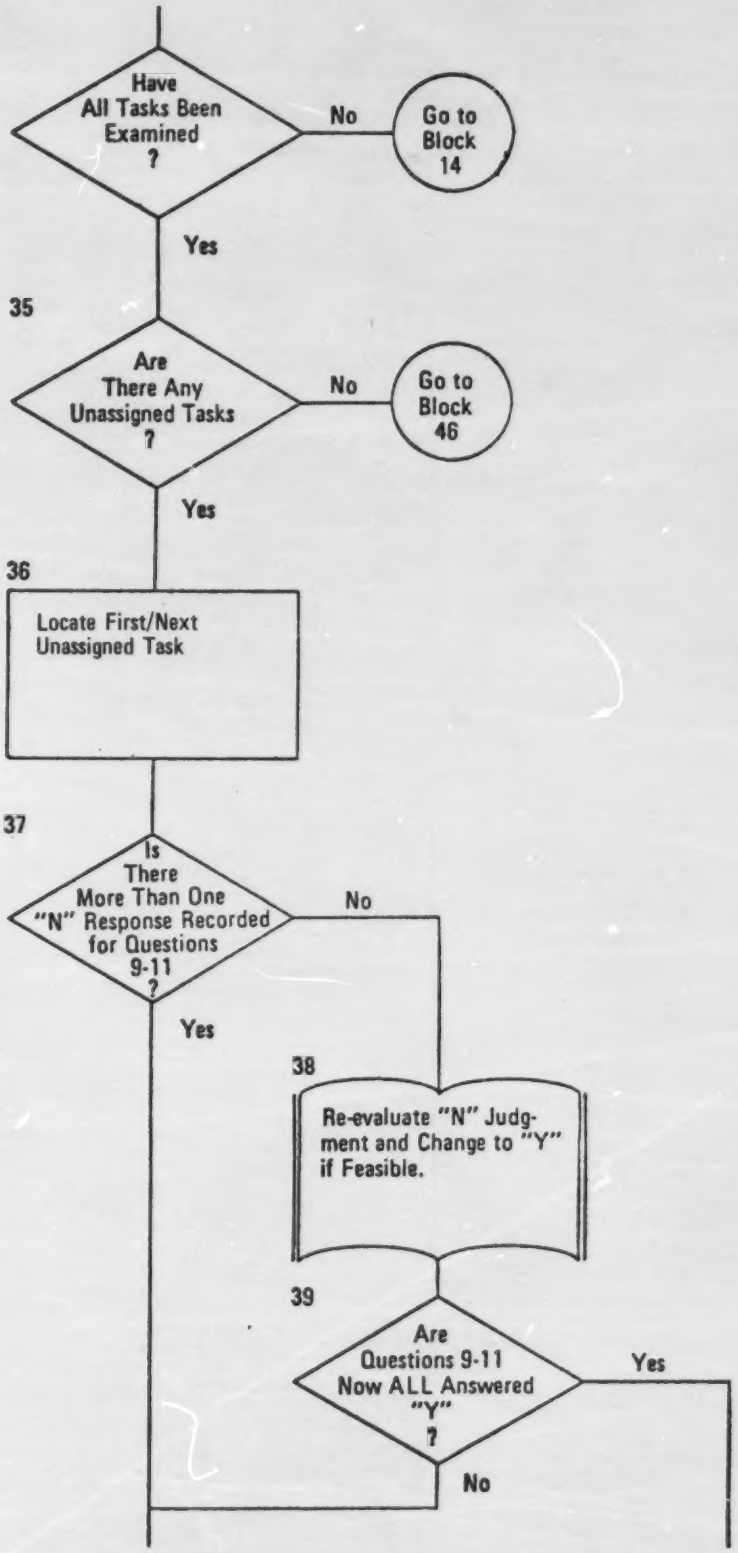

17
Is There More Than One Duty Position ?
No
Go to Block 19
Yes
18
Ask Question 1. Record "Y" or "N" as Appropriate.
19
Ask Question 2. Record "Y" or "N" as Appropriate.
20
Was a "Y" Recorded for Either Question 1 and 2 ?
No
Go to Block 25
Yes
21
Ask Question 3. Record "Y" or "N" as Appropriate.

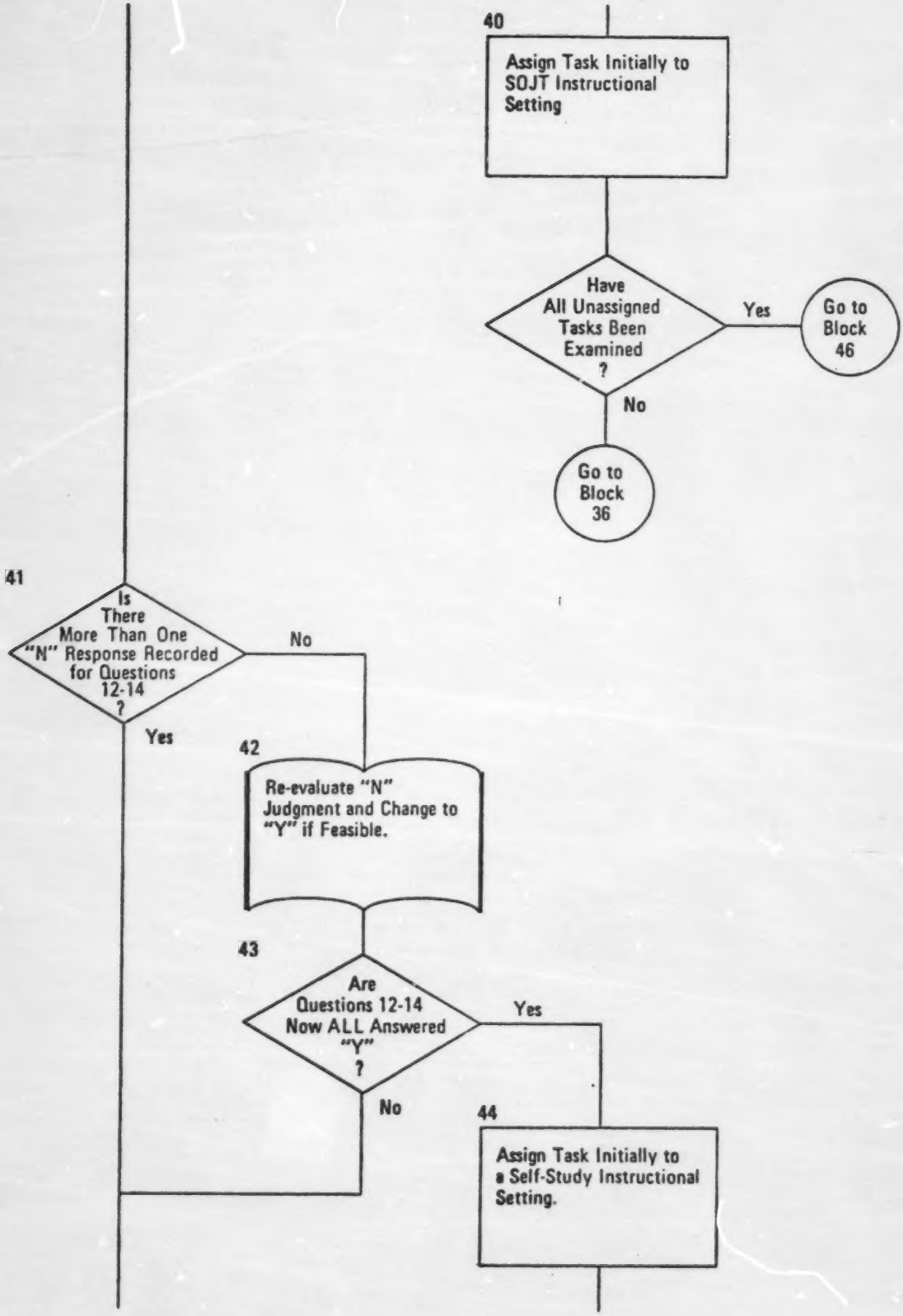

22
Ask Question 4.
Record "Y" or "N"
as Appropriate.
23
Were
Both Questions
3 and 4 Answered
Yes
?
Yes
No
24
Assign Task Initially to
INSTITUTIONAL
Instructional Setting.
Have
All Tasks Been
Examined
?
Yes
Go to
Block
35
No
Examine Next Task
Go to
Block
14

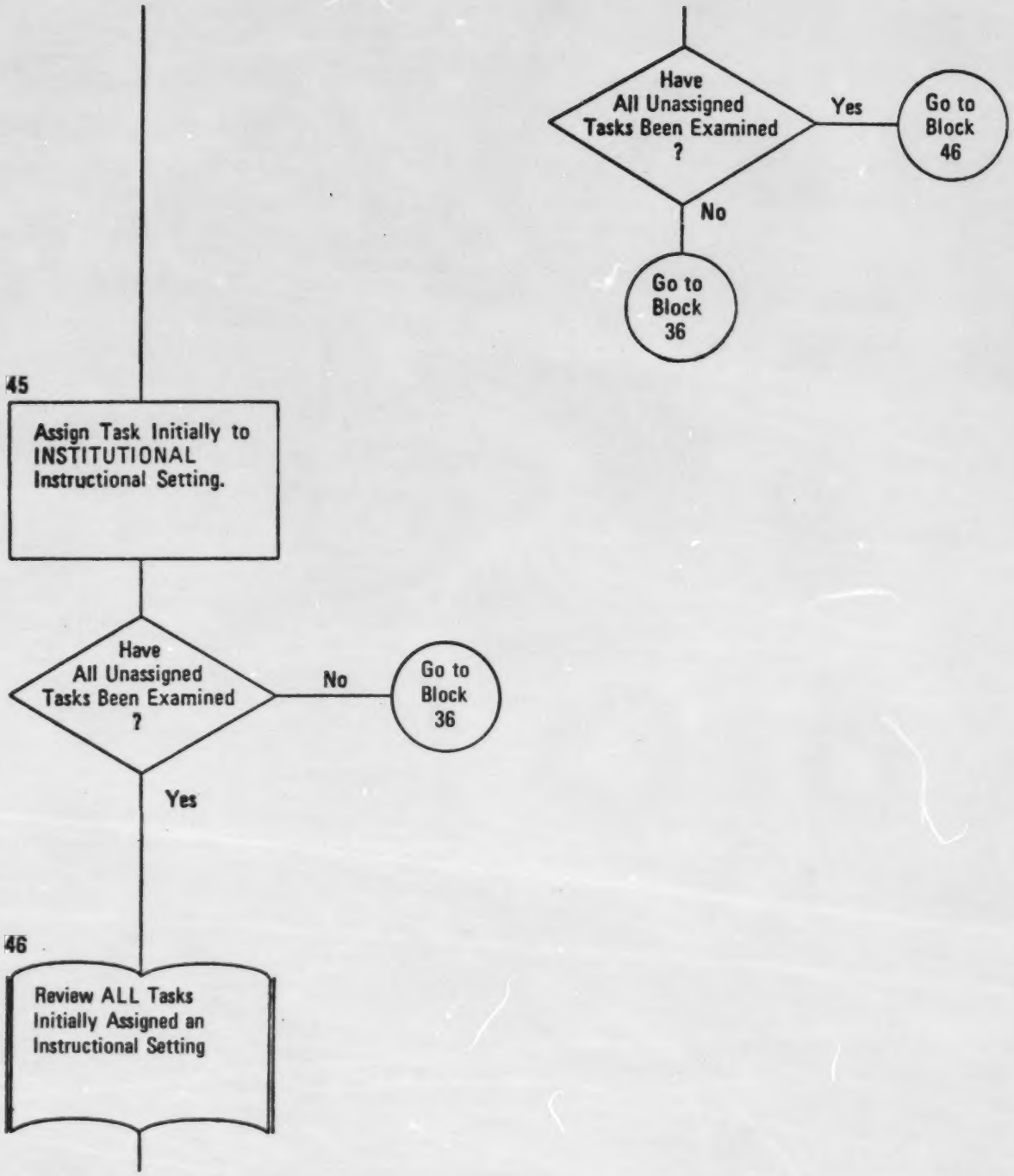

25
Ask Questions 5-8. Record a "Y" or "N" for Each as Appropriate.
26
Were 1 or More "Y's" Recorded for Questions 5-8 ?
Yes
No
27
Assign Task Initially to INSTITUTIONAL Instructional Setting.
Have All Tasks Been Examined ?
Yes
Go to Block 35
No
Examine Next Task
Go to Block 14

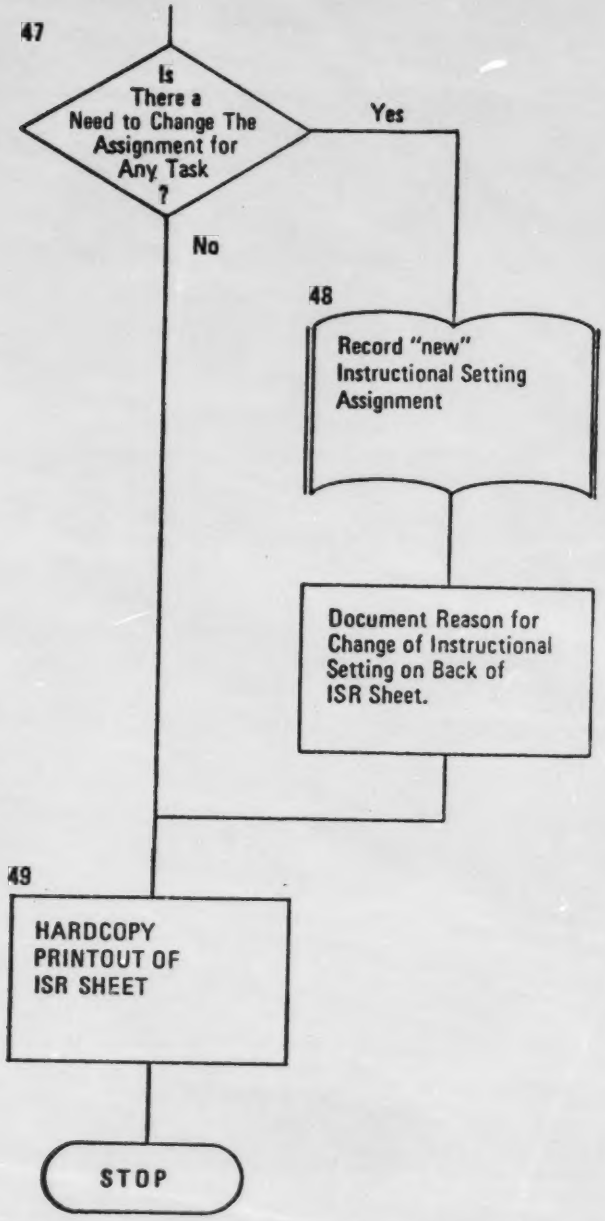

28
Ask Questions 9-11. Record a "Y" or "N" for Each as Appropriate.
29
Were ALL Questions (9-11) Answered "Y" ?
Yes
No
30
Assign Task Initially to SOJT Instructional Setting.
Have All Tasks Been Examined ?
Yes
Go to Block 35
No
Examine Next Task
Go to Block 14


31
Ask Questions 12-14. Record a "Y" or "N" for Each as Appropriate.
32
Were ALL Questions (12-14) Answered "Y" ?
Yes
No
33
Assign Task Initially to a Self-Study Instructional Setting.
Have All Tasks Been Examined ?
Yes
Go to Block 35
No
Examine Next Task.
Go to Block 14
34
Temporarily Leave Task Unassigned.


Have All Tasks Been Examined ?
No
Go to Block 14
Yes
35
Are There Any Unassigned Tasks ?
No
Go to Block 46
Yes
36
Locate First/Next Unassigned Task
37
Is There More Than One "N" Response Recorded for Questions 9-11 ?
No
Yes
38
Re-evaluate "N" Judgment and Change to "Y" if Feasible.
39
Are Questions 9-11 Now ALL Answered "Y" ?
Yes
No


40
Assign Task Initially to SOJT Instructional Setting
Have All Unassigned Tasks Been Examined ?
Yes
Go to Block 46
No
Go to Block 36
41
Is There More Than One "N" Response Recorded for Questions 12-14 ?
No
Yes
42
Re-evaluate "N" Judgment and Change to "Y" if Feasible.
43
Are Questions 12-14 Now ALL Answered "Y" ?
Yes
No
44
Assign Task Initially to a Self-Study Instructional Setting.


Have All Unassigned Tasks Been Examined ?
Yes
Go to Block 46
No
Go to Block 36
45
Assign Task Initially to INSTITUTIONAL Instructional Setting.
Have All Unassigned Tasks Been Examined ?
No
Go to Block 36
Yes
46
Review ALL Tasks Initially Assigned an Instructional Setting


47
Is There a Need to Change The Assignment for Any Task ?
Yes
No
48
Record "new" Instructional Setting Assignment
Document Reason for Change of Instructional Setting on Back of ISR Sheet.
49
HARDCOPY PRINTOUT OF ISR SHEET
STOP

Section IV

VARIABLES USED IN THE PROGRAMMING DESIGN GUIDE

This section of the Programming Design Guide provides an alphabetical listing of variables used in the program. Generally, the variable names are self-explanatory. However, where needed, an explanation of what the variable is used for is provided.

Keep in mind that these variable names are used only to communicate with programmers who are using the Programming Design Guide. Feel free to rename any variable.

DP	A numeric variable used to index the duty position array.
DPNEW	A numeric variable used to count the number of duty positions during the modification process.
$DUTYCODE	An array of alphanumeric variables used to define the duty positions.
$DUTYCODE2	A temporary array of alphanumeric variables used in the program when the user is modifying the duty position designations.
DUTYCODE_MAXIMUM	A numeric variable which defines the maximum number of alphanumeric characters that can make up a duty position title.
$ESTIMATE	Temporary variable that stores yes/no indicating whether percentage performing task is an estimate or not.
FIRST_TIME	Variable used to determine if the first unassigned task is being re-evaluated.
FSETTING	An array of numeric variables used to store the final designations of instructional settings. The numbers stored will be a 1, 2, or 3.
HP_CRITERION	Criterion value for percentage of soldiers who must perform a task before the task is identified as a "high performance task."
$INPUTLINE,100	An alphanumeric variable that is to store temporarily the user's input duty code designation. It is limited to 100 characters.

$INSTR_SETTING (3,20)	An alphanumeric array of 3 variables each of which contains one of the instructional settings. $INSTR-SETTING(1) = "Institution" $INSTR-SETTING(2) = "S O J T" (supervised on-the-job training) $INSTR-SETTING(3) = "Self-study"
ISR_%	An array of numeric variables used to store the actual (as opposed to estimated) percentages of soldiers who perform given tasks.
ISR_%E	An array of numeric variables used to store the estimated (as opposed to actual) percentages of soldiers who perform the given tasks.
ISR_DUTY	An array of numeric variables used to store which tasks are performed by each duty position.
ISR_QUESTION	An array of numeric variables used for recording the responses to the 14 questions.
MAXIMUM_DUTY_POSITIONS	A numeric variable which defines the maximum number of duty positions that can be included in the program.
MAXIMUM_TASKS	A numeric variable which defines the maximum number of tasks that can be included in the program.
$MOSCODE	An alphanumeric variable used to store an MOS. May not be longer than 10 characters in length.
NEW_S	Variable used to hold the changed value of an instructional setting.
NOCOUNT	Counter of "NO" responses to a specific question.
NUMBER_OF_TASKS	A numeric variable in which the number of tasks in the MOS (for a skill level) is recorded.
PERFORMS	Indicates if task (yes/no) is performed in a specific duty position.
Q	Counter for keeping track of which questions are being examined.
S	Counter for keeping track of which instructional setting is being reviewed.
SETTING	An array of numeric variables used to store, by task, the initial designations of instructional settings. The numbers stored will be a 1, 2, or 3.

$SETTING	Variable used for storing the specific instructional setting. 1 = institution 2 = SOJT (Supervised On-the-Job Training) 3 = Self-study
SKILL	A numeric variable used to record the skill level of the MOS being treated. The numeric value is 1, 2, 3, or 4.
TASK	A numeric variable used to index the array of tasks.
$TASKCODE	An alphanumeric string used to define a task title. The string cannot be longer than TASKCODE_MAXIMUM in length.
TASKCODE_MAXIMUM	A numeric variable which defines the maximum number of alphanumeric characters that make up a task title.
WORK	Temporary variable used for branching
WHICH	Variable that holds the number of the specific question being re-evaluated.

Section V

SETUP MATERIAL

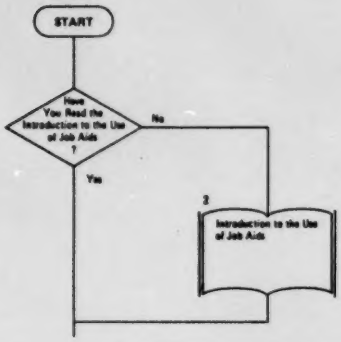
To facilitate the programming of the computer version of the Job Aid for Selecting Instructional Settings, it is necessary that you first program (in your programming language) setup material. A guide for the necessary setup material is shown below. You must, of course, establish your own value for MAXIMUM TASKS, MAXIMUM_DUTY_POSITIONS, and NUMBER_OF_DUTY_POSITIONS. In addition, you will provide your own task ID numbers and task titles for $TASKCODE(1) thru $TASKCODE(n) -- limit 40 characters -- and your duty positions for $DUTYCODE(1) thru DUTYCODE(n) -- limit 30 characters.

```
SET         MAXIMUM_TASKS = 24
SET         MAXIMUM_DUTY_POSITIONS = 15
SET         TASKCODE_MAXIMUM = 40
SET         DUTYCODE_MAXIMUM = 30
$STRING     $TASKCODE(MAXIMUM_TASKS), TASKCODE_MAXIMUM
$STRING     $DUTYCODE(MAXIMUM_DUTY_POSITIONS), DUTYCODE_MAXIMUM
$STRING     $DUTYCODE2(MAXIMUM_DUTY_POSITIONS,DUTYCODE_MAXIMUM)
$STRING     $MOSCODE,10
ARRAY       ISR_DUTY(MAXIMUM_DUTY_POSITIONS,MAXIMUM_TASKS)
ARRAY       ISR%(MAXIMUM_TASKS)
ARRAY       ISR%_E(MAXIMUM_TASKS)
ARRAY       SETTING(MAXIMUM_TASKS)
ARRAY       FSETTINGS(MAXIMUM_TASKS)
ARRAY       ISR_QUESTION(14,MAXIMUM_TASKS)
$STRING     $INSTR_SETTING(3),20
$SET        $INSTR_SETTING(1) = "INSTITUTIONAL"
$SET        $INSTR_SETTING(2) = "S O J T"
$SET        $INSTR_SETTING(3) = "SELF STUDY"
SET         NUMBER_OF_TASKS = 24

$SET        $TASKCODE(1) = 574-2058   Operate Radio Test Set AN/VRM-1 to
                                      Test Modules in AN/VRC-12 Series
                                      Radio Sets

$SET        $TASKCODE(2) = 587-0025   Repair Radio Set, AN/PRC-25/77

$SET        $TASKCODE(3) = 587-0032   Systems Troubleshooting Radio Set,
                  .                   AN/VRC-12 including C-2742/VRC to a
                  .                   Defective Component, Cable or
                  .                   Accessory

$SET        $TASKCODE(n) = 587-1027   Verify installation of Radio Set
                                      AN/VRC-46 in a Tracked Vehicle
```

```
$SET        NUMBER_OF_DUTY_POSITIONS = 2
$SET        $DUTYCODE(1) = Support Mechanic
$SET        $DUTYCODE(2) = Special Forces Mechanic
                .
                .
                .
$SET        $DUTYCODE(n) =   . . .
```

Section VI

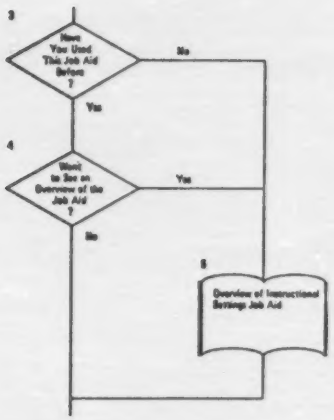
PROGRAMMING SPECIFICATIONS



BLOCK	COMMAND	TAG	COMMENTS
1a	SHOW DECIDE	Have you read the Introduction to the Job Aids? block3a, block2a	
2a	SHOW WAIT	(text2a) block1a	

(text2a) The Introduction to the Job Aids is presently contained in Chapter I of the booklet, Supplemental Guide: Sources Information for On-Line Implementation of ISD I.5 Select Instructional Setting, which can be obtained from your supervisor.

Sign off the computer and obtain this Supplemental Guide. After reading it, sign back on to the computer to continue.



BLOCK	COMMAND	TAG	COMMENTS
3a	SHOW	Have you used this Job Aid before? Enter Y or N. If you want to see a previous display, enter B (for BACK).	
	DECIDE	block4a, block5a, block1a	
4a	SHOW	Do you want to see an overview of the Job Aid and instruction in using this computer program?	
	DECIDE	block5a, block6a, block3a	
5a	SHOW	(text5a)	
	WAIT	block3a	
5b	SHOW		***programmer--provide instruction (text) for signing on and off your system.
	WAIT	block5a	
5c	SHOW	(text5c)	
	WAIT	block5b	
5d	SHOW	(text5d)	
	WAIT	block5c	
5e	SHOW	text5e	
	WAIT	block5d	
5f	SHOW		***programmer--provide instruction (text) for answering questions.
	WAIT	block5e	

(text5a) To use this Job Aid you must know how to interact with the computer. Specifically, you will need to know:

(1) How to sign on and off the computer system.
(2) How to advance to new material.
(3) When and how to review previously viewed material.
(4) When additional help is available and how this help can be accessed.
(5) How to answer questions presented by the computer.
(6) When and where off-line guidance is available.

#PRESS NEXT# FOR FURTHER INFORMATION ON EACH OF THE ABOVE.

(text5c) HOW TO ADVANCE TO NEW MATERIAL

In all cases where there is only textual material being presented, you can signal the computer that you are ready to go to new material by #PRESS NEXT#.

(text5d) TO REVIEW PREVIOUSLY VIEWED MATERIAL

For some parts of the program you will be allowed to review previously viewed material if you so desire. Whenever the review option is available, you will see on your display "BACK." If you wish to exercise the review option #PRESS BACK#.

If the review option is requested when not available, "BACK not available" will appear on your display.

(text5e) ADDITIONAL HELP

In a few displays for the program, additional assistance is available for responding to a question asked by the computer. Whenever additional assistance is available, you will see on your display, "HELP". If you wish to exercise this option, #PRESS HELP#.

If the "HELP" option is requested when not available, "HELP not available" will appear on your display.

BLOCK	COMMAND	TAG	COMMENTS
5g	SHOW	(text5g)	
	WAIT	block5f	
5h	SHOW	Would you like to review the instruction on using this program?	
	DECIDE	block5a, block5i, block5g	
5i	SHOW	#PRESS NEXT# for an overview of the Instructional Settings Job Aid	
	SHOWB	Guide reference pages 3-4.	
	WAIT	block5h	
5j	SHOWB	(text5j)	
	WAIT	block5i	
5k	SHOWB	(textk)	
	WAIT	block5j	
5m	SHOWB	(text5m)	
	WAIT	block5k	

(text5g) OFF-LINE GUIDANCE

In some cases, "MANUAL, pp _ _ _" will appear on your display. This will usually indicate that a series of textual matter is included in an off-line manual as well as being in the computer. You may find the manual particularly useful for reviewing material or for getting a wider perspective than can be obtained on the computer.

(text5j) OBJECTIVE

1. Given a list of tasks selected for training within a single skill level, select the most appropriate instructional setting for training each task to the Soldier's Manual Standard. (Qualification Training)

2. Record the basis for each instructional setting selection.

(text5k) PURPOSE

The purpose of this aid is to help you choose instructional settings (training locations) for tasks selected for training within each skill level. Due to advancements in instructional technology, it is often more cost-beneficial and efficient to train tasks in a non-institutional (extension) setting. This aid is designed to help you identify as many tasks as possible for which extension training is appropriate.

(text5m) PRODUCT

This job aid will result in a listing of all critical tasks in which each task is assigned for training to one of the following instructional settings:

a. Institution (resident school training)
b. Supervised On-the-Job Training (SOJT)
c. Self-study

This output will be especially useful in the preparation of the Commander's Manual.

BLOCK	COMMAND	TAG	COMMENTS
5n	SHOW	(text5n)	
	WAIT	block5n	
5o	SHOW	(text5o)	
	WAIT	block5n	
5p	SHOW	(text5p)	
	WAIT	block5o	

(text5n) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING

Step 1. Tasks selected for training are categorized by duty position.

Step 2. Task performance data is obtained and recorded for each task. That is:

a. In which duty position is the task performed?
b. What percentage of soldiers perform the task?

(Continued)

(text5o) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING (Continued)

Step 3. Initial assignment of the task to one of three instructional settings (institution, supervised on-the-job training, or self-study) is made based on the answers to the following 14 questions:

(1) Is task a common skill level task?
(2) Is task performed by a high percentage of soldiers?
(3) Is task performed in a similar manner in various duty positions and units?

(Continued)

(text5p) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING (Continued)

Step 3. (Continued)

(4) Is proficiency in task performance retained over time? (i.e., not easily forgotten)
(5) Does task require considerable theoretical knowledge?
(6) Must the task be performed immediately on entry to the job?
(7) Is the task a prerequisite for learning to perform other school trained tasks?

(Continued)

BLOCK	COMMAND	TAG	COMMENTS
5q	SHOW	(text5q)	
	WAIT	block5p	
5r	SHOW	(text5r)	
	WAIT	block5q	
5s	SHOW	(text5s)	
	WAIT	block5r	

(text5q) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING (Continued)

Step 3. (Continued)

(8) Is training equipment and/or facilities only available at the school?
(9) Is the equipment required for individual training of the task in the unit available at most units?
(10) Are personnel with the necessary expertise to conduct training of the task available at most units?

(Continued)

(text5r) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING (Continued)

Step 3. (Continued)

(11) Do Operational requirements at most units allow sufficient time for the soldier to receive training in the unit?
(12) Can the task be learned with very little supervision?
(13) Does the soldier's schedule allow sufficient time for independent study?
(14) Can everything required for training (which is not already available in the unit) be included in the exportable training package at a cost competitive with school (institution) training?

(text5s) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING (Continued)

The complete list of questions from Step 3 is not necessarily asked for each task. Questions are asked only until a decision is reached for task assignment to a particular instructional setting.

BLOCK	COMMAND	TAG	COMMENTS
5t	SHOW	(text5t)	
	WAIT	block5s	
5u	SHOW	(text5u)	
	WAIT	block5t	
5v	SHOW	(text5v)	
	WAIT	block5u	
5w	SHOW	(text5w)	
	WAIT	block5v	
5x	SHOW	(text5x)	
	WAIT	block5w	
5y	SHOW	(text5y)	
	WAIT	block5x)	
5z	SHOW	(text5z)	
	WAIT	block5y	
5aa	SHOW	(text5aa)	
	WAIT	block5z	

(text5t) OVERVIEW OF MAJOR STEPS IN SELECTING INSTRUCTIONAL SETTING (Continued)

Step 4. Administrative review and final selection of instructional setting.

In Step 3, tasks are assigned initially to one of the three instructional settings. In this step each task is reviewed to determine if the initial assignment is still the best instructional setting on the basis of expert opinion. In the review of each task, questions of the type shown on the following displays are asked:

(text5u) (1) Have so many tasks been assigned to SOJT or Self-Study that there is not enough time to train all the tasks before they must be performed?

(text5v) (2) Have so many tasks been assigned to SOJT that units can't handle the load?

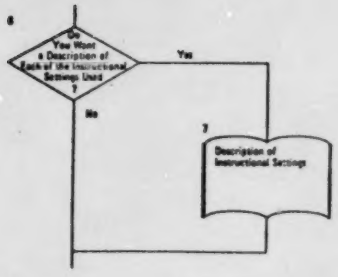
(text5w) (3) Have so few tasks been assigned to a particular setting that administrative costs outweigh the advantages of training so few tasks in this instructional setting?

(text5x) (4) Would resource and time constraints in the development of new training programs delay the onset of critically needed training?

(text5y) (5) Are there any other reasons why the initially selected instructional setting should be changed?

(text5z) After reviewing each task and asking questions similar to those just shown, any indicated changes in instructional setting is made. The rationale for each change is to be carefully documented.

(text5aa) The task listing with the final selections of instructional settings is submitted to the supervisor for review and revision.



BLOCK	COMMAND	TAG	COMMENTS
5bb	SHOW	Would you like to review the overview for this Job Aid again?	
	SHOWB	Guide reference pages 3-4.	
	DECIDE	block5i, block6a	
6a	SHOW	(text6a)	
	DECIDE	block7a, block8a, block4a	
7a	SHOW	(text7a)	
	SHOWB	Guide reference pages 5-6.	
	WAIT	block6a	
7b	SHOW	(text7b)	
	WAIT	block7a	
7c	SHOW	(text7c)	
	WAIT	block7b	

(text6a) The instructional setting will often determine both the location and manner in which instruction on a task is to take place. Selecting the most appropriate instructional setting is important for several reasons. Among them are:

- Soldiers learn tasks better in the proper setting and retain them longer.

- With training requirements increasing in a time of decreasing resources, the best possible use must be made of our trainers and our training dollars.

(text7a) The three instructional settings used in this Job Aid are:

- Institution (Inst)

- Supervised on-the-job training (SOJT)

- Self-study

Do you want a description of each of these instructional settings?

(text7b) Institution(INST)

Training conducted at TRADOC resident schools and includes:

OSUT - One Station Unit Training

PNCOC - Primary Noncommissioned Officer Course

BNCOC - Basic Noncommissioned Officer Course

ANCOC - Advanced Noncommissioned Officer Course

Training is always conducted under supervision of qualified instructors.

Press #NEXT# for description of Supervised On-The-Job Training (SOJT)

(text7c) Supervised On-The-Job-Training (SOJT)

-- Training is conducted at the soldier's unit

-- Training is supervised by best qualified NCOs in unit.

Press #NEXT# for description of Self-Study

BLOCK	COMMAND	TAG	COMMENTS
7d	SHOW	(text7d)	
	WAIT	block7c	
7e	SHOW	(text7e)	
	WAIT	block7d	
7f	SHOW	(text7f)	
	WAIT	block7e	
7g	SHOW	(text7g)	
	WAIT	block7f	

(text7d) Self-Study

Training administered during individuals own time, usually at the soldier's unit, and includes:

- Self-teaching exportable packages (STEP)
- Training Extension Courses
- Job Performance Aids
- Study Guides
- Correspondence Courses
- Films, tapes, etc.

Little supervision required

(text7e) Press #NEXT# to see the advantages and disadvantages of the three instructional settings.

(text7f) INSTITUTION

Advantages
- Usually best setting for training common skill level tasks or tasks that are performed by large percentage of soldiers in the MOS/skill level
- Sophisticated training resource and expertise available

Disadvantages
- Lack of real world environment
- High cost of soldier's housing and travel
- Time is spent away from job assignment

(text7g) SUPERVISED ON-THE-JOB-TRAINING

Advantages
- Effective for training tasks that can be learned faster or better with hands-on experience

Disadvantages
- May tie up unit's equipment and thus equipment may not be available for operational use
- May overburden supervisors
- Reduces time available in unit for operational requirements

BLOCK	COMMAND	TAG	COMMENTS
7h	SHOW	(text7h)	
	WAIT	block7g	
7i	SHOW	(text7i)	
	WAIT	block7h	

(text7h)

SELF-STUDY

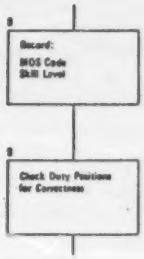
Advantages - Effective for training tasks which can be learned without an instructor or where little supervision is required

- Can be accomplished at trainee's convenience

Disadvantages - If study occurs during normal duty hours, this type of training may reduce time available in unit for operational requirements.

- May require soldier to devote considerable off-duty time to study

(text7i) Tables which provide a comparison of the description of each instructional setting and the advantages and disadvantages of each are shown in the Supplemental Guide: Source Information for On-Line Implementation of ISD I.5 Select Instructional Setting on page 6. (Hereafter referred to as Supplemental Guide.)



BLOCK	COMMAND	TAG	COMMENTS
8a	SHOW	What MOS are you working with?	
	$ACCEPT	$MOSCODE,10	
	SHOW	What is the skill level?	
	ACCEPT	SKILL,1,4	
	SHOW	You are working with MOS /$MOSCODE/ and the skill level is /SKILL/. Is this correct?	
	DECIDE	block9a, block8a, block6a	
9a	SHOW	(text9a)	
	WAIT		
9b	ITERATE	DP , 1 , NUMBER_OF_DUTY_POSITIONS	
	SHOW	Duty position /DP/ is /$DUTYCODE(DP)/	***roll on all duty position designators onto terminal. The end product should be a list of duty position designators.
	NEXT	DP	
	SHOW	Are these duty positions correct?	
	DECIDE	block10a, block9c	
9c	SHOW	(text9c)	
	WAIT		

(text9a) In previous ISD Blocks it was established that there are /NUMBER_OF_DUTY_POSITIONS/ duty positions.

#PRESS NEXT# to see a list of the duty positions that were recorded in earlier ISD Blocks.

(text9c) It is extremely important that before you make any additions, deletions, or changes in duty positions that you check with:

- Your supervisor
- The individual(s) who prepared the Critical Task List (ISD I.2)
- The individual(s) who performed task analysis (ISD I.3). If they agree with your suggested additions, deletions, or changes you will be allowed to enter them into the terminal.

BLOCK	COMMAND	TAG	COMMENTS
9d	SHOW	Do you still want to make any additions, deletions, or changes in duty position designations?	
	DECIDE	block9e, block10a	
9e	ITERATE	DP, 1, NUMBER_OF_DUTY_POSITIONS	
	$SET	$DUTYCODE2(DP) = $DUTYCODE(DP)	****copy$DUTYCODE's to $DUTYCODE2
	NEXT	DP	
	SET	DPNEW = 0	
	ITERATE	DP, 1, NUMBER_OF_DUTY_POSITIONS	
9f	SHOW	Duty position /DP/ is /$DUTYCODE2(DP)/. Is this correct?	
	DECIDE	block9i, block9g	
9g	SHOW	Do you want to delete this duty position?	
	DECIDE	block9j, block9h	
9h	SHOW	Enter the correct duty position designation.	
	ACCEPT	$INPUTLINE,100	
	$SET	$DUTYCODE2(DP) = $INPUTLINE	
	GOTO	block9f	

BLOCK	COMMAND	TAG	COMMENTS
9i	SET	DPNEW = DPNEW +1	
	$SET	$DUTYCODE(DPNEW) = $DUTYCODE2(DP)	
9j	NEXT	DP	
	SET	NUMBER_OF_DUTY_POSITIONS = DPNEW	
9k	SHOW	Are there any additional duty position designations that should be added?	
	DECIDE	block9m, block9o	
9m	GOTO	block9n IF NUMBER_OF_DUTY_POSITIONS ≥ MAXIMUM_DUTY_POSITIONS	
	SHOW	Enter a new duty position designation.	
	SET	NUMBER_OF_DUTY_POSITIONS = NUMBER_OF_DUTY_POSITIONS +1	
	$ACCEPT	$INPUTLINE,100	
	$SET	$DUTYCODE(NUMBER_OF_DUTY_POSITIONS) = $INPUTLINE	
9n	SHOW	There is no more space available for duty code designations. #PRESS NEXT# to continue	
	WAIT		
9o	SHOW	#PRESS NEXT# to see a corrected list of duty position designations.	
	WAIT		

BLOCK	COMMAND	TAG	COMMENTS
9p	ITERATE	DP, 1, NUMBER_OF_DUTY_POSITIONS	
	SHOW	Duty position /DP/ is /$DUTYCODE(DP)/	****roll on all duty position designators onto terminal. The end product should be a list of duty position designators.
	NEXT	DP	
	SHOW	Are these duty positions correct?	
	DECIDE	block10a, block9e	
10a	SHOW	The next operation is to determine which tasks are performed in each duty position.	
	ITERATE	TASK, 1, NUMBER_OF_TASKS	
10b	ITERATE	DP, 1, NUMBER_OF_DUTY_POSITIONS	
	SHOW	Does the /$DUTYCODE(DP)/ perform this task: /$TASKCODE(TASK)/	
10c	SET	ISR_DUTY(DP,TASK) = 1	****indicate a "yes" response ****process the next duty position.
	GOTO	block10e	
10d	SET	ISR_DUTY(DP,TASK) = 0	

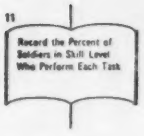
BLOCK	COMMAND	TAG	COMMENTS
10e	NEXT	DP	
	SHOW	(text10e)	****show the question, the task and a table showing each duty position number and whether user claimed soldier performed or not in each duty position. Programmer should modify format to fit computer system.
	ITERATE	DP, 1, NUMBER_OF_DUTY_POSITIONS	
	GOTO	block10f IF ISR_DUTY(DP,TASK) = 1	
	GOTO	block10g IF ISR_DUTY(DP,TASK) = 0	
10f	SET	$PERFORMS = "yes"	
	GOTO	block10h	
10g	SET	$PERFORMS = "no"	
10h	SHOW	(text10e)	****show only /DP/ & /$PERFORMS/
	NEXT	DP	
10i	NEXT	TASK	

(text10e) Do you want to respecify the duty positions in which this task is performed?

/$TASKCODE(TASK)/

DUTY POS	PERFORMS	DUTY POS	PERFORMS
/DP/	/$PERFORMS/	/DP/	/$PERFORMS/

Refer to duty position listing



BLOCK	COMMAND	TAG	COMMENTS
11a	SHOW	(text11a)	
	SHOWB	Guide reference page 7.	
	WAIT		
11b	SHOW	(text11b)	
	WAIT	block11a	
11c	SHOW	(text11c)	
	WAIT	block11b	
11d	SHOW	(text11d)	
	WAIT	block11c	
11e	SHOW	(text11e)	
	WAIT	block11d	

(textlla) The next operation you will perform is to determine and record the percentage of soldiers in the skill level who perform each task. There are several sources which can provide this information. #PRESS NEXT# for a description of these sources. Remember, you will use one or more of these sources for entering the percentage of soldiers in the skill level who perform each task.

(textllb) CODAP GROUP SUMMARY REPORT

CODAP data, when available, are excellent for determining the percent of soldiers within the skill level who perform each task. However, it is likely that not all tasks represented in the skill level will be represented on the CODAP Report. Consequently, even when a CODAP Report is available, it will probably be necessary to supplement the data from the Report with data from other sources.

(textllc) FIELD SURVEY

Field Survey data are excellent for determining the percent of soldiers who perform each task. However, a field survey should only be conducted when CODAP data are not available (or badly out of date) and when there is sufficient time to conduct the survey. Guidance for conducting a field survey can be found in Chapter III of the Supplemental Guide.

(textlld) PANEL OF RECENT JOB INCUMBENTS

This represents a fair source of information for determining the percent of soldiers within the skill level who perform each task. See Chapter VI of the Supplemental Guide.

(text lle) PANEL OF SUBJECT MATTER EXPERTS

Use this source only if none of the above sources are available. See Chapter VI of the Supplemental Guide.

BLOCK	COMMAND	TAG	COMMENTS
11f	SHOW	(text11f)	
	SHOWB	Guide reference page 7.	
	WAIT	block11h	
11g	ITERATE	TASK, 1, NUMBER_OF_TASKS	
11h	SHOW	What percentage of soldiers perform the task: /$TASKCODE(TASK)/? Enter a value between 1 - 100	
	ACCEPT	ISR_%(TASK), 1, 100	
	SHOW	Is this percentage value an estimate (i.e., not CODAP or field survey results)?	
	DECIDE	block11i, block11j, block11h	
11i	SET	ISR_%E(TASK)	****remember that it's an estimate
	GOTO	block11k	
11j	SET	IRS_%E(TASK) = 0	****indicate an exact percentage
11k	NEXT	TASK	

(textllf) As a last resort, you may have to use your own judgment. You will now enter the percentage of soldiers in the skill level who perform each task.

BLOCK	COMMAND	TAG	COMMENTS
11m	SHOW	(text11m)	***text11m is a part of a table. Show the question and the headings for a table. The data to be shown in the table is text11p
	ITERATE	TASK, 1, NUMBER_OF_TASKS	
	GOTO	block11n IF ISR_%E(TASK) = 1	
	GOTO	block11o IF ISR_%E(TASK) = 0	
11n	SET	$ESTIMATE = "Yes"	
	GOTO	block11p	
11o	SET	$ESTIMATE = "No"	
11p	SHOW	(text11p)	***text11p provides the data for the table set up in block11m
	NEXT	TASK	
	DECIDE	block11q, block12a, block11g	

(text11m) Do you want to respecify these percentages?

TASK	%	ESTIMATE	TASK	%	ESTIMATE
(text11p) *	**	***	*	**	***
*	**	***	*	**	***
*	**	***	*	**	***
etc	etc	etc	etc	etc	etc

NOTE TO PROGRAMMER: In the above table, replace the *, ** and *** as follows:

* = $TASKCODE(TASK)
** = ISR_%(TASK)
*** = $ESTIMATE(TASK)

BLOCK	COMMAND	TAG	COMMENTS
11q	ITERATE	TASK, 1, NUMBER_OF_TASKS	
	SHOW	(text11q)	
	ACCEPT	$COMMAND, 1	
	GOTO	block11r IF $COMMAND = "Y"	
	GOTO	block11u IF $COMMAND = "N"	
	GOTO	block12a IF $COMMAND = "F"	
11r	SHOW	What percentage of soldiers perform /$TASKCODE(TASK)/?	
	ACCEPT	ISR_Z(TASK), 1, 100	
	SHOW	Is this percentage an estimate?	
	DECIDE	block11s, block11t, block11r	
11s	SET	ISR_ZE(TASK) = 1	
	GOTO	block11u	
11t	SET	ISR_ZE(TASK) = 0	
11u	NEXT	TASK	
	GOTO	block11m	

(text11q) Percent Performing = /ISR_%(TASK)/

Do you want to change the percentage for task:

TASK	ESTIMATE
/$TASKCODE(TASK)/?	/$ESTIMATE/?

BLOCK	COMMAND	TAG	COMMENTS
12a	SHOW	(text12a)	
	WAIT	block11m	
12b	SHOW	(text12b)	
	WAIT	block12a	
12c	SHOW	What is the criterion for a High Performance Task?	
	ACCEPT	HP_CRITERION, 1, 100, block12a	
	SHOW	The criterion for a high performance task is /HP_CRITERION/ percent performing or more. Is this correct?	
	DECIDE	block13a, block12c, block12	

(text12a) Your next activity will be to establish the percentage criteria to use for classifying a task as a "high performance task."

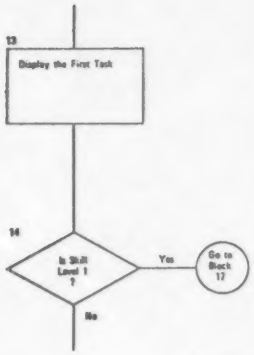
"High Performance Tasks" are those tasks that are performed by a high percentage of job incumbents. High Performance Tasks are usually trained in the institutional instructional setting.

#PRESS NEXT# for sources of information on how to establish the percentage criteria for "High Performance Tasks."

(text12b) Sources of Information:

- Check with your supervisor. Your installation may have already established a certain percentage as the criterion for training a task in the institution.

- Check with subject matter experts working in other MOSs. Find out what value(s) they have used and their reasons for selecting that value.



BLOCK	COMMAND	TAG	COMMENTS
13a	SHOW	(text13a)	
	WAIT		
13b	SHOW	(text13b) or (text13b-alt)	****If only a part of the task description is stored, use text13b-alt. Otherwise, use text13b.
	WAIT	block13a	
13c	SHOW	(text13c)	
	WAIT	block13b	
13d	SHOW	(text13d)	
	WAIT	block13a	
13e	ITERATE	TASK, 1, NUMBER_OF_TASKS	
	SET	SETTING(TASK) = 0	****indicates that task is unassigned.
13f	ITERATE	Q, 1, 14	
	ITERATE	TASK, 1, NUMBER_OF_TASKS	
	SET	ISR_QUESTION (Q,TASK) = 99	
	NEXT	TASK	
	NEXT	Q	
14a	GOTO	block17a IF SKILL = 1	

(text13a) We will now attempt to assign each task to a tentative instructional setting by asking certain questions. Questions are asked only until a decision is reached for task assignment to a particular instructional setting.

#PRESS NEXT# to learn the procedure that will be used for each question.

(text13b) FIRST: You will be shown the question and told what it is all about.

SECOND: You will be provided sources of information for answering the questions.

THIRD: You will again be shown the question. You will have the option of reviewing any previously seen "sources of information" before you answer the question.

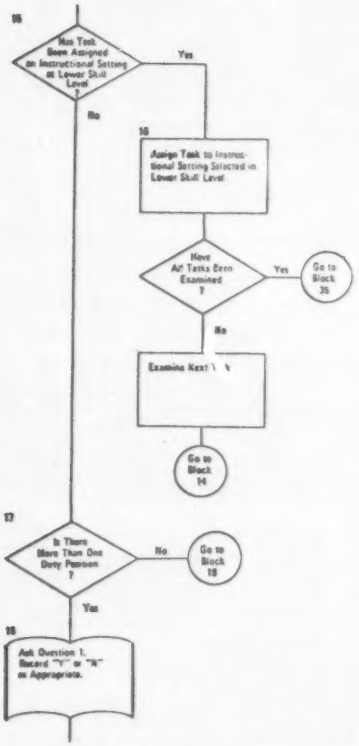
(text13b-alt) FIRST: You will be shown enough of the task so that you can identify it on your task list. At this same time, you will be shown the question and told what it is all about.

SECOND: You will be provided sources of information for answering the question.

THIRD: You will again be shown part of the task and the question. You will have the option of reviewing any previously seen "sources of information" before you answer the question.

(text13c) If you would like to see a complete list of the questions, refer to the Supplemental Guide, page 4. However, keep in mind that the complete list of questions is not necessarily asked for each task.

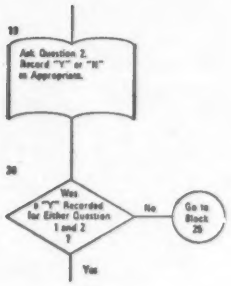
(task13d) #PRESS NEXT# for the first question.



BLOCK	COMMAND	TAG	COMMENTS
15a	SHOW	/$TASKCODE(TASK)/ Has the above task been assigned an instructional setting at a lower skill level?	
	DECIDE	block16a, block17a	
16a	SHOW	(text16a)	
	ACCEPT	S, 1, 3	
	SET	SETTING(TASK) = S	
	GOTO	block35a IF TASK = NUMBER_OF_TASKS	
	SHOW	#PRESS NEXT# to examine the next task.	
	NEXT	TASK	
18a	GOTO	block39a IF NUMBER_OF_DUTY_POSITIONS = 1	

(text16a) Which instructional setting was it assigned? (ENTER THE NUMBER)

1 -- Institutional
2 -- Supervised on-the-job training (SOJT)
3 -- Self-study



BLOCK	COMMAND	TAG	COMMENTS
18a	SET	ISR_QUESTION(1,TASK) = 0	****default to "no"
	ITERATE	DP, 1, NUMBER_OF_DUTY_POSITIONS	
	GOTO	block19a IF ISR_DUTY(DP,TASK) = 0	
	NEXT	DP	
	SET	ISR_QUESTION(1,TASK) = 1	****indicate "Y" for question 1.
19a	GOTO	block19b IF ISR_%(TASK)≥HP_CRITERION	
	SET	ISR_QUESTION(2,TASK) = 0	****Not a high performance task.
	GOTO	block20a	
19b	SET	ISR_QUESTION(2,TASK) = 1	****It is a high performance task.
20a	SET	WORK = ISR_QUESTION(1,TASK)+ ISR_QUESTION(2,TASK)	
	GOTO	block25a IF WORK = 0	

BLOCK	COMMAND	TAG	COMMENTS
21a	SHOW	(text21a)	
	WAIT		
21b	SHOW	(text21b)	
	SHOWB	Guide reference page 7.	
	WAIT	block?1a	
21c	SHOW	(text21c)	
	WAIT	block21b	
21d	SHOW	(text21d)	
	WAIT	block21c	
21e	SHOW	(text21e)	
	WAIT	block21d	
21f	SHOW	(text21f)	
	WAIT	block21e	
21g	SHOW	(text21g)	
	WAIT	block21f	

(text21a) /$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering the following question: Are the training requirements for this task essentially the same regardless of the mission, equipment allocation, geographical location, etc., of units in which the job incumbent is assigned? If task training requirements are much the same, an institution training setting should be strongly considered. On the other hand, if training requirements differ considerably between units or duty positions, training in the unit (SOJT or self-study) should be considered.

(text21b) SOURCES OF INFORMATION

Job performance measures or task performance descriptions developed in ISD I.3 Construct Job Performance Measures is an excellent source of equipment used in task performance. This will assist in determining whether equipment differences between units will have an effect on training requirements.

(text21c) SOURCES OF INFORMATION (continued)

TOE/MTOE and TDA is another excellent source of information concerning equipment allocation in various units.

(text21d) SOURCES OF INFORMATION (continued)

Training Manuals and supply bulletins used in conjunction with TOE should be considered as a good source of information.

(text21e) SOURCES OF INFORMATION (continued)

A panel of recent job incumbents can provide good information for answering this question. See Supplemental Guide for guidance in establishing and using this particular panel.

(text21f) SOURCES OF INFORMATION (continued)

Panel of subject matter experts. This also is a good source. See the Supplemental Guide for guidance in establishing and using a panel of subject matter experts.

(text21g) SOURCES OF INFORMATION (continued)

Your own judgment. Use only as a last resort or in conjunction with other sources.

BLOCK	COMMAND	TAG	COMMENTS
21h	SHOW	(text21h)	
	DECIDE	block21b, block21i	
21i	SHOW	(text21i)	
	SHOWB	Guide reference page 7.	
	DECIDE	block21j, block21k, block21b	
21j	SET	ISR_QUESTION(3,TASK) = 1	
	GOTO	block22a	
21k	SET	ISR_QUESTION(3,TASK) = 0	

(text21h) Would you like to review the various sources of information before you answer the question?

(text21i) ANSWER THIS QUESTION

/$TASKCODE(TASK)/

Are the training requirements for this task essentially the same regardless of the mission, equipment allocation, geographical location, etc., of units in which the job incumbent is assigned?

BLOCK	COMMAND	TAG	COMMENTS
22a	SHOW	(text22a)	
	WAIT	block21a	
22b	SHOW	(text22b)	
	SHOWB	Guide reference page 8.	
	WAIT	block22a	
22c	SHOW	(text22c)	
	WAIT	block22b	
22d	SHOW	(text22d)	
	WAIT	block22c	
22e	SHOW	(text22e)	
	WAIT	block22d	
22f	SHOW	(text22f)	
	WAIT	block22e	
22g	SHOW	(text22g)	
	DECIDE	block22b, block22h	
22h	SHOW	(text22h)	
	SHOWB	Guide reference page 8.	
	DECIDE	block22i, block22j, block22b	

(text22a) /$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: If this task is taught in the school (institution), will it still be remembered by the time the soldier has to perform the task on the job? We all know that there are some tasks we remember how to do more easily than others. Factors which influence retention must be considered when you select the instructional setting. There is no point in training a task in the institution if the soldier can't remember how to perform the task when he arrives on the job. SOJT or self-study should be considered when training retention is likely to be low.

(text22b) The following are examples of factors to consider in answering this question:

Tasks for which the soldier has had previous civilian or military experience will usually be easily remembered (e.g., driving a vehicle).

(text22c) Tasks which the soldier considers important to remember will be better learned and more easily recalled.

(text22d) Some tasks require frequent opportunities for practice in order to retain task proficiency.

(text22e) In general, motor tasks (physical activities) are more easily remembered than mental tasks.

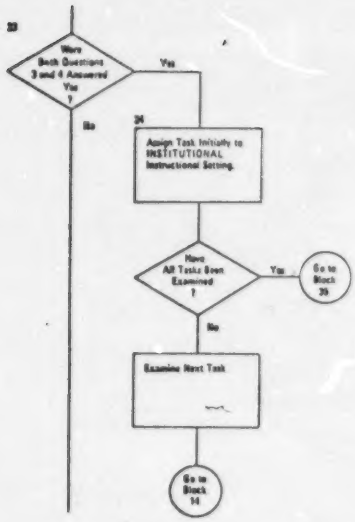
(text22f) Tasks which involve short regular procedures are more easily remembered than those for which there is no clear cut procedure to follow.

(text22g) Would you like to review the factors to consider when deciding whether the task is a high retention task?

(text22h) ANSWER THIS QUESTION

/$TASKCODE(TASK)/

If this task is taught in the school (institution), will it still be remembered by the time the soldier has to perform the task on the job?



BLOCK	COMMAND	TAG	COMMENTS
22i	SET	ISR_QUESTION(4,TASK) = 1	
	GOTO	block23a	
22j	SET	ISR_QUESTION(4,TASK) = 0	
23a	SET	WORK = ISR_QUESTION(3,TASK) + ISR_QUESTION(4,TASK)	
	GOTO	block25a IF WORK ≠ 2	****If not both "Y" answers
24a	SET	SETTING(TASK) = 1	****Assign to institutional setting initially.
	GOTO	block35a IF TASK = NUMBER_OF_TASKS	
	SHOW	#PRESS NEXT# to examine the next task.	
	NEXT	TASK	

BLOCK	COMMAND	TAG	COMMENTS
25a	SHOW	(text25a)	
	WAIT		
25b	SHOW	(text25b)	
	SHOWB	Guide reference page 8.	
	WAIT	block25a	
25c	SHOW	(text25c)	
	WAIT	block25a	
25d	SHOW	(text25d)	
	WAIT	block25c	
25e	SHOW	(text25e)	
	WAIT	block25d	
25f	SHOW	(text25f)	
	DECIDE	block25b, block25g	
25g	SHOW	(text25g)	
	SHOWB	Guide reference page 8.	
	DECIDE	block25h, block25i, block25b	

100

(text25a) /$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Is there a considerable amount of theory to be taught with this task?

(text25b) SOURCES OF INFORMATION

Output from ISD I.3 Construct Job Performance Measures, or ISD I.2 Conducting Task Analysis, provide a good source of information. Examine task descriptions to determine how the task is performed. This should provide an excellent insight into the amount of theoretical content that will be required for training the task.

(text25c) SOURCES OF INFORMATION (continued)

Training Manuals are an excellent source of information.

(text25d) SOURCES OF INFORMATION (continued)

Field survey of Job Supervisors is an excellent source if time for survey is available. See the Supplemental Guide for guidance in conducting a field survey.

(text25e) SOURCES OF INFORMATION (continued)

Panel of Recent Job Supervisors. Fair source. See the Supplemental Guide for guidance in establishing panel.

(text25f) Would you like to review the sources of information for this question before answering it?

(text25g) ANSWER THIS QUESTION

/$TASKCODE(TASK)/

Is there a considerable amount of theory to be taught with this task?

BLOCK	COMMAND	TAG	COMMENTS
25h	SET	ISR_QUESTION(5,TASK) = 1	
	GOTO	block25j	
25i	SET	ISR_QUESTION(5,TASK) = 0	
25j	SHOW	(text25j)	
	WAIT	block25a	
25k	SHOW	(text25k)	
	SHOWB	Guide reference page 9.	
	WAIT	block25j	
25m	SHOW	(text25m)	
	WAIT	block25k	
25n	SHOW	(text25n)	
	WAIT	block25m	
25o	SHOW	(text25o)	
	DECIDE	block25k, block25p	
25p	SHOW	(text25p)	
	SHOWB	Guide reference page 9.	
	DECIDE	block25q, block25r, block25k	

102

(text25j) /$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Must this task be performed immediately on entry to the job (i.e., before it could be trained on the job)?

(text25k) SOURCES OF INFORMATION

Field Survey of Job Supervisors and/or Incumbents. Excellent source when time for survey is available and if information is not available through CODAP. See Supplemental Guide for guidance in conducting the survey.

(text25m) SOURCES OF INFORMATION (continued)

Panel of Recent Job Incumbents. Good source. See Supplemental Guide for guidance in selecting panel.

(text25n) SOURCES OF INFORMATION (continued)

Your own judgment. Use only if all other sources are unavailable.

(text25o) Would you like to review the sources of information for this question before answering it?

(text25p) ANSWER THIS QUESTION

/$TASKCODE(TASK)/

Must this task be performed immediately on entry to the job (i.e., before it could be trained on the job)?

BLOCK	COMMAND	TAG	COMMENTS
25q	SET	ISR_QUESTION(6,TASK) = 1	
	GOTO	block25s	
25r	SET	ISR_QUESTION(6,TASK) = 0	
25s	SHOW	(text25s)	
	WAIT		
25t	SHOW	(text25t)	
	WAIT	block25s	
25u	SHOW	(text25u)	
	DECIDE	block25v, block25w, block25t	
25v	SET	ISR_QUESTION(7,TASK) = 1	
	GOTO	block25x	
25w	SET	ISR_QUESTION(7,TASK) = 0	
25x	SHOW	(text25x)	
	SHOWB	Guide reference page 9.	
	WAIT		

(text25s) /$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Is this task a prerequisite for learning and/or performing other school trained tasks (i.e., must the soldier be able to perform this task in order to learn other tasks taught in the school)?

(text25t) SOURCES OF INFORMATION

Review of other tasks already assigned to resident school setting.

(text25u) ANSWER THIS QUESTION

/$TASKCODE(TASK)/

Is this task a prerequisite for learning and/or performing other school trained tasks (i.e., must the soldier be able to perform this task in order to learn other tasks taught in the school)?

(text25x) /$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Are equipment and/or facilities only available for training at the school?

BLOCK	COMMAND	TAG	COMMENTS
25y	SHOW	(text25y)	
	WAIT	block25x	
25z	SHOW	(text25z)	
	WAIT	block25y	
25aa	SHOW	(text25aa)	
	DECIDE	block25y, block25bb	
25bb	SHOW	(text25bb)	
	SHOWB	Guide reference page 9.	
	DECIDE	block25cc, block25dd, block25y	
25cc	SET	ISR_QUESTION(8,TASK) = 1	
	GOTO	block26a	
25dd	SET	ISR_QUESTION(8,TASK) = 0	

(text25y) SOURCES OF INFORMATION

Check Training Manuals, task decription, etc., to determine training equipment requirements. Survey field supervisors to determine if training equipment is available in field units.

(text25z) SOURCES OF INFORMATION (continued)

Panel of Recent Job Supervisors. Use in conjunction with Training Manuals, Job Performance Measures, etc. See Supplemental Guide for guidance in selecting panel.

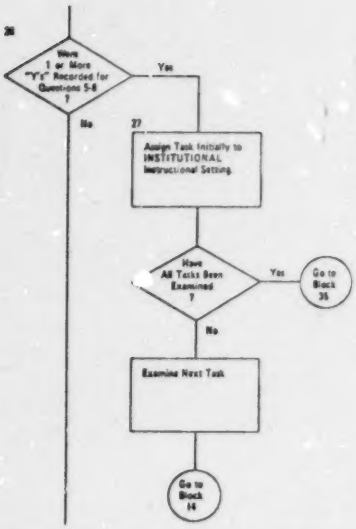
(text25aa) Do you want to review the sources of information before you answer the question?

(text25bb) ANSWER THIS QUESTION

/$TASKCODE(TASK)/

Are equipment and/or facilities only available for training at the school?

107



BLOCK	COMMAND	TAG	COMMENTS
26a	ITERATE	Q, 5, 8	
	GOTO	block27a IF ISR_QUESTION(Q,TASK)=1	****If answer is "Y"
	NEXT	Q	
	GOTO	block28a	
27a	SET	SETTING(TASK) = 1	****Assign to institutional setting.
	GOTO	block35a IF TASK = NUMBER_OF_TASKS	
	SHOW	#PRESS NEXT# to examine the next task.	
	NEXT	TASK	

BLOCK	COMMAND	TAG	COMMENTS
28a	SHOW	(text28a)	
	WAIT		
28b	SHOW	(text28b)	
	SHOWB	Guide reference page 9.	
	WAIT	block28a	
28c	SHOW	(text28c)	
	WAIT	block28b)	
28d	SHOW	(text28d)	
	WAIT	block28c	
28e	SHOW	(text28e)	
	DECIDE	block28b, block28f	
28f	SHOW	(text28f)	
	SHOWB	Guide reference page 9.	
	DECIDE	block28g, block28h, block28b	
28g	SET	ISR_QUESTION(9,TASK) = 1	
	GOTO	block28i	
28h	SET	ISR_QUESTION(9,TASK) = 0	

(text28a) /$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Is the equipment required for individual training of this task in the unit available at most units?

(text28b) SOURCES OF INFORMATION

Field Survey of Supervisors is an excellent source of information if time for survey is available. See Supplemental Guide for guidance in conducting a survey.

(text28c) SOURCES OF INFORMATION (continued)

Panel of Recent Job Supervisors is a good source of information. See Supplemental Guide for guidance in selecting panel.

(text28d) SOURCES OF INFORMATION (continued)

Training Manuals to determine equipment requirement followed by review of TOE/MTOE or TDA for appropriate units. Good source of information.

(text28e) Would you like to review the sources of information before answering the question?

(text28f) ANSWER THIS QUESTION

/$TASKCODE(TASK)/

Is the equipment required for individual training of this task in the unit available at most units?

BLOCK	COMMAND	TAG	COMMENTS
28i	SHOW	(text28i)	
	WAIT		
28j	SHOW	(text28j)	
	SHOWB	Guide reference page 10.	
	WAIT	block28i	
28k	SHOW	(text28k)	
	WAIT	block28j	
28m	SHOW	(text28m)	
	WAIT	block28k	
28n	SHOW	(text28n)	
	DECIDE	block28j, block28o	
28o	SHOW	(text28o)	
	SHOWB	Guide reference page 10.	
	DECIDE	block28p, block28q, block28j	
28p	SET	ISR_QUESTION(10,TASK) = 1	
	GOTO	block28r	
28q	SET	ISR_QUESTION(10,TASK) = 0	

(text28i) /$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Are personnel with the necessary expertise available at most units to conduct the training for this task?

(text28j) SOURCES OF INFORMATION

Field Survey of Supervisors is an excellent source of information if time for survey is available. See Supplemental Guide for guidance in conducting a field survey.

(text28k) SOURCES OF INFORMATION (continued)

Panel of Recent Job Supervisors. Good source. See Supplemental Guide for guidance in convening the panel.

(text28m) SOURCES OF INFORMATION (continued)

Your own judgment. Use only if other sources are not available.

(text28n) Do you want to review the sources of information before answering this question?

(text28o) ANSWER THIS QUESTION

/$TASKCODE(TASK)/

Are personnel with the necessary expertise available at most units to conduct the training for this task?

BLOCK	COMMAND	TAG	COMMENTS
28r	SHOW	(text28r)	
	WAIT		
28s	SHOW	(text28s)	
	SHOWB	Guide reference page 10.	
	WAIT	block28r	
28t	SHOW	(text28t)	
	WAIT	block28s	
28u	SHOW	(text28u)	
	DECIDE	block28s, block28v	
28v	SHOW	(text28v)	
	SHOWB	Guide reference page 10.	
	DECIDE	block28w, block28x, block28s	
28w	SET	ISR_QUESTION(11,TASK) = 1	
	GOTO	block29a	
28x	SET	ISR_QUESTION(11,TASK) = 0	

(text28r) /$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Do operational requirements at most units allow sufficient time for the soldier to be trained in the unit?

(text28s) SOURCES OF INFORMATION

Field Survey of Supervisors is an excellent source of this information. See Supplemental Guide for guidance in conducting a field survey.

(text28t) SOURCES OF INFORMATION (continued)

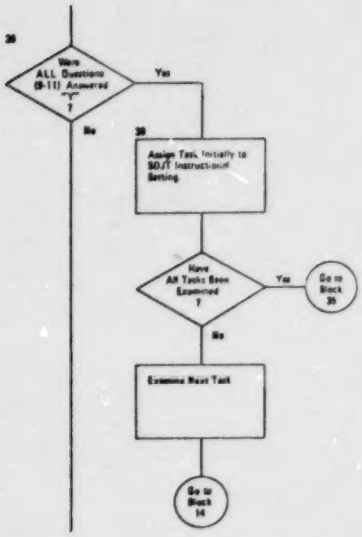
Panel of Recent Job Supervisors. Good source. See Supplemental Guide for guidance in selecting panel.

(text28u) Do you want to review the sources of information before answering this question?

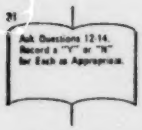
(text28v) ANSWER THIS QUESTION

/$TASKCODE(TASK)/

Do operational requirements at most units allow sufficient time for the soldier to be trained in the unit?



BLOCK	COMMAND	TAG	COMMENTS
29a	ITERATE	Q, 9, 11	
	GOTO	block31a IF ISR_QUESTION(Q,TASK) = 0	
	NEXT	Q	
30a	SET	SETTING(TASK) = 2	****Indicates SOJT instructional setting.
	GOTO	block35a IF TASK = NUMBER_OF_TASKS	
	SHOW	#PRESS NEXT# to examine the next task.	
	NEXT	TASK	



BLOCK	COMMAND	TAG	COMMENTS
31a	SHOW	(text31a)	
	WAIT		
31b	SHOW	(text31b)	
	SHOWB	Guide reference page 10.	
	WAIT	block31a	
31c	SHOW	(text31c)	
	WAIT	block31b	
31d	SHOW	(text31d)	
	WAIT	block31c	
31e	SHOW	(text31e)	
	WAIT	block31d	
31f	SHOW	(text31f)	
	DECIDE	block31b, block31g	
31g	SHOW	(text31g)	
	DECIDE	block31h, block31i, block31b	
31h	SET	ISR_QUESTION(12,TASK) = 1	
	SHOWB	Guide reference page 10.	
	GOTO	block31j	
31i	SET	ISR_QUESTION(12,TASK) = 0	

(text31a) /$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Can this task be learned with very little supervision (i.e., can the soldier learn the task through self-study)?

(text31b) SOURCES OF INFORMATION

Output from ISD I.2 Select Task/Functions. Task learning difficulty should have been established on a rating scale of 1 to 7 and will, therefore, be an excellent indication of the amount of supervision required.

(text31c) SOURCES OF INFORMATION (continued)

Field Survey of Job Supervisors. Excellent source if time for survey is available. See Supplemental Guide for guidance in conducting field survey.

(text31d) SOURCES OF INFORMATION (continued)

Panel of Recent Job Supervisors. Good source of information. See Supplemental Guide for guidance in selecting panel.

(text31e) SOURCES OF INFORMATION (continued)

Your own judgment. Use only if other sources are not available.

(text31f) Do you want to review the sources of information before you answer this question?

(text31g) ANSWER THIS QUESTION

/$TASKCODE(TASK)/

Can this task be learned with very little supervision (i.e., can the soldier learn the task through self-study)?

BLOCK	COMMAND	TAG	COMMENTS
31j	SHOW	(text31j)	
	WAIT		
31k	SHOW	(text31k)	
	SHOWB	Guide reference page 10.	
	WAIT	block31j	
31m	SHOW	(text31m)	
	WAIT	block31k	
31n	SHOW	(text31n)	
	WAIT	block31m	
31o	SHOW	(text31o)	
	DECIDE	block31k, block31p	
31p	SHOW	(text31p)	
	SHOWB	Guide reference page 10.	
	DECIDE	block31q, block31r, block31k	
31q	SET	ISR_QUESTION(13,TASK) = 1	
	GOTO	block31s	
31r	SET	ISR_QUESTION(13,TASK) = 0	

(text31j) /$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Does the soldier's schedule allow sufficient time for independent study?

(text31k) SOURCES OF INFORMATION

Field Survey of Job Incumbents and Job Supervisors. Excellent source especially when a comparison is made between the two sources. See Supplemental Guide for guidance in conducting a field survey.

(text31m) SOURCES OF INFORMATION (continued)

Panel of Recent Job Incumbents and Recent Job Supervisors. Good source. See Supplemental Guide for guidance in selecting panels.

(text31n) SOURCES OF INFORMATION (continued)

Your own judgment. Use only if other sources are not available.

(text31o) Do you want to review the sources of information before you answer this question?

(text31p) ANSWER THIS QUESTION

/$TASKCODE(TASK)/

Does the soldier's schedule allow sufficient time for independent study?

BLOCK	COMMAND	TAG	COMMENTS
31s	SHOW	(text31s)	
	WAIT		
31t	SHOW	(text31t)	
	SHOWB	Guide reference page 11.	
	WAIT	block31s	
31u	SHOW	(text31u)	
	WAIT	block31t	
31v	SHOW	(text31v)	
	WAIT	block31u	
31w	SHOW	(text31w)	
	DECIDE	block31t, block31x	
31x	SHOW	(text31x)	
	SHOWB	Guide reference page 11.	
	DECIDE	block31y, block31z, block31t	
31y	SET	ISR_QUESTION(14,TASK) = 1	
	GOTO	block32a	
31z	SET	ISR_QUESTION(14,TASK) = 0	

(text31s) /$TASKCODE(TASK)/

Press #NEXT# for sources of information for answering this question: Can everything required for training (which is not already available in the field) be included in the training package and is it inexpensively exportable?

(text31t) SOURCES OF INFORMATION

Check with Course Development Personnel.

(text31u) Panel of Subject Matter Experts. Fair source. See Supplemental Guide for guidance in selecting panel.

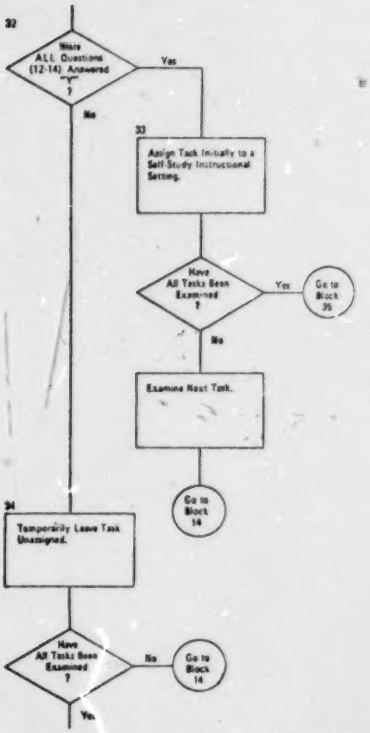
(text31v) Your own judgment. Use only if other sources are not available.

(text31w) Do you want to review the sources of information before answering the question?

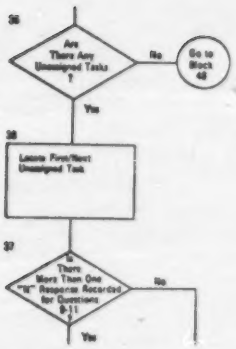
(text31x) ANSWER THIS QUESTION

/$TASKCODE(TASK)/

Can everything required for training (which is not already available in the field) be incuded in the training package and is it inexpensively exportable?



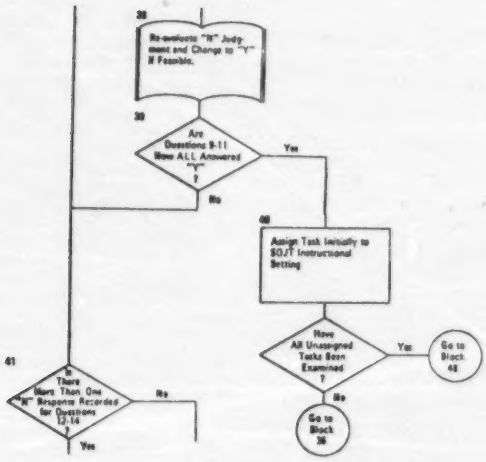
BLOCK	COMMAND	TAG	COMMENTS
32a	ITERATE	Q, 12, 14	
	GOTO	block34a IF ISR_QUESTION(Q,TASK) = 0	
	NEXT	Q	
33a	SET	SETTING(TASK) = 3	****Indicates self-study instructional setting.
34a	GOTO	block35a IF TASK = NUMBER_OF_TASKS	
	SHOW	#PRESS NEXT# to examine the next task.	
	NEXT	TASK	



BLOCK	COMMAND	TAG	COMMENTS
35a	SET	FIRST_TIME = Ø	
35b	ITERATE	TASK, 1, NUMBER_OF_TASKS	
36a	GOTO	block37a IF SETTING(TASK) = 0	****Jump out of loop if an unassigned task is found.
	NEXT	TASK	
	GOTO	block46a	****Go to review of initial assignments when all tasks are assigned.
37a	SET	NOCOUNT = 0	
	ITERATE	Q, 9, 11	
	GOTO	block37b, IF ISR_QUESTION(Q,TASK) = 1	
	SET	NOCOUNT = NOCOUNT + 1	
	SET	WHICH = Q	
37b	NEXT	Q	
	GOTO	block41a IF NOCOUNT > 1	
	CALL	INTROa	****NEW PDL COMMAND TO CALL A SUBROUTINE.
	SHOW	(text37b)	****Show this text in combination with text 38a, b, or c (i.e., do not automatically clear text37b).
	GOTO	block38a IF WHICH = 9	
	GOTO	block38b IF WHICH = 10	
	GOTO	block38c IF WHICH = 11	

(text37b) Please reevaluate the following question with respect to task

/$TASKCODE(TASK)/:



BLOCK	COMMAND	TAG	COMMENTS
38a	SHOW	(text38a)	
	GOTO	block39a	
38b	SHOW	(text38b)	
	GOTO	block39a	
38c	SHOW	(text38c)	
39a	DECIDE	block40a, block41a	
40a	SET	SETTING(TASK) = 2	
	SET	ISR_QUESTION(WHICH,TASK) = -1	****INDICATE CHANGED ANSWER
	NEXT	TASK	
41a	SET	NOCOUNT = 0	
	ITERATE	Q, 12, 14	
	GOTO	block41b IF ISR_QUESTION(Q,TASK) = 1	
	SET	NOCOUNT = NOCOUNT + 1	
	SET	WHICH = Q	
41b	NEXT	Q	
	GOTO	block45a IF NOCOUNT > 1	
	CALL	INTROa	****SUBROUTINE CALL
	SHOW	(text41b)	

(text38a) EQUIPMENT AVAILABLE AT UNIT?

Is the equipment required for individual training of this task in the unit available at most units?

Can you realistically change your "NO" response to a "YES" response?

(text38b) SUPERVISION AVAILABLE AT UNIT?

Are personnel with the necessary expertise available at most units to conduct the training for this task?

Can you realistically change your "NO" response to a "YES" response?

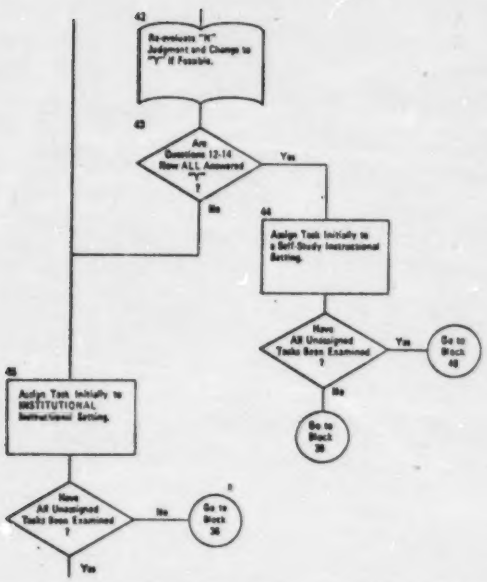
(text38c) TIME TO TRAIN AVAILABLE AT UNIT?

Do operational requirements at most units allow sufficient time for the soldier to be trained in the unit?

Can you realistically change your "NO" response to a "YES" response?

(text41b) Please reevaluate the following question with respect to task

/$TASKCODE(TASK)/:



BLOCK	COMMAND	TAG	COMMENTS
41c	GOTO	block42a IF WHICH = 12	
	GOTO	block42b IF WHICH = 13	
	GOTO	block42c IF WHICH = 14	
42a	SHOW	(text42a)	
	GOTO	block43a	
42b	SHOW	(text42b)	
	GOTO	block43a	
42c	SHOW	(text42c)	
43a	DECIDE	block44a, block45a	
44a	SET	SETTING(TASK) = 3	
	SET	ISR_QUESTION(WHICH,TASK) = -1	****INDICATE CHANGED ANSWER
	NEXT	TASK	
45a	SET	SETTING(TASK) = 1	
	NEXT	TASK	

(text42a) LITTLE SUPERVISION REQUIRED?

Can this task be learned with very little supervision (i.e., can the soldier learn the task through self-study)?

Can you realistically change your "NO" response to a "YES" response?

(text42b) TIME TO STUDY AVAILABLE?

Does the soldier's schedule allow sufficient time for independent study?

Can you realiscically change your "NO" response to a "YES" response?

(text42c) LESSONS/EQUIPMENT EXPORTABLE?

Can everything required for training (which is not already available in the field) be included in the training package and is it inexpensively exportable?

Can you realistically change your "NO" response to a "YES" response?

BLOCK	COMMAND	TAG	COMMENTS
46a	SHOW	(text46a)	
	SHOWB	Guide reference page 11.	
	WAIT		
46b	ITERATE	S, 1, 3	****Go through loop for each instructional setting.
	GOTO	block46c IF S = 1	
	GOTO	block46f IF S = 2	
	GOTO	block46j IF S = 3	
46c	SHOW	(text46c)	
	WAIT		
46d	SHOW	(text46d)	
	WAIT	block46c	
46e	SHOW	(text46e)	
	SHOWB	Guide reference page 11.	
	WAIT	block46d	
	GOTO	block46m	

(text46a) We will now review the initial instructional setting for each task.

#PRESS NEXT#

(text46c) For each task initially assigned to the Institution, consider any reason why the task should NOT be trained in a school setting. Following are examples of questions you might want to ask as you review each task:

- Do feedback from the field or SQT results indicate that an Institutional setting has proven ineffective for any of these tasks?

- Are appropriate cues or stimuli not available in the school for any task?

#PRESS NEXT# for more example questions.

(text46d)

- Are skilled instructors available for teaching the task in the school?

- Is time and money available for training the task in the school?

- Are there any job factors unique to this MOS which would cause you to change this instructional setting?

- Will new equipment/simulators soon to be available cause to change this setting?

You may have other reasons why the task should not be taught at the institution. Consider each reason carefully.

#PRESS NEXT#

(text46e) If you decide that an institutional setting is unsuitable, review questions 7 through 14 on the ISR Sheet to determine if the task can be assigned to SOJT or Self-study. If necessary, consult with other subject matter experts or your supervisor to arrive at a suitable instructional setting for the task.

#PRESS NEXT#

BLOCK	COMMAND	TAG	COMMENTS
46f	SHOW	(text46f)	
	WAIT		
46g	SHOW	(text46g)	
	WAIT	block46f	
46h	SHOW	(text46h)	
	WAIT	block46g	
46i	SHOW	(text46i)	
	SHOWB	Guide reference page 11.	
	WAIT	block46h	
	GOTO	block46m	

(text46f) For each task initially assigned to SOJT, consider any reason why the task should NOT be trained in that setting. Following are examples of questions you might want to ask as you review each task.

#PRESS NEXT#

(text46g)
- Do feedback from the field or SQT results indicate that a SOJT setting has proven ineffective for any of these tasks?

- Is the environment too hazardous for training this task in the field? For example, would errors made during training in a field environment be critical to the student, to others, or to equipment?

- Will new equipment/simulators soon to be available cause you to change this setting?

#PRESS NEXT# for more questions.

(text46h)
- Do "percentage performing" figures indicate that fewer soldiers are performing this task than should be? If so, does the percent which should be performing meet the criterion for high task performance and, therefore, consideration for Institutional training?

- Are there any job factors unique to this MOS which would cause you to change this instructional setting?

You may have other reasons why the task should not be taught by SOJT. Consider each reason carefully.

#PRESS NEXT#

(text46i) If you decide that a SOJT instructional setting is unsuitable, review all of the questions on the ISR Sheet to determine if the task should be assigned to an Institutional or Self-study instructional setting. If necessary, consult with other subject matter experts or your supervisor to arrive at a suitable instructional setting for the task.

#PRESS NEXT#

BLOCK	COMMAND	TAG	COMMENTS
46j	SHOW	(text46j)	
	WAIT		
46k	SHOW	(text46k)	
	WAIT	block46j	
46m	SHOW	(text46m)	
	SHOWB	Guide reference page 12.	
	WAIT	block46k	
46n	ITERATE	TASK, 1, NUMBER_OF_TASKS	
	GOTO	block48f IF SETTING(TASK) = S	

(text46j) For each task initially assigned to Self-study, consider any reason why the task should NOT be learned in this setting. Following are examples of questions you might want to ask as you review each task:

- Do feedback from the field or SQT results indicate that a Self-study setting has proven ineffective for any of these tasks?

- Will new equipment/simulators soon to be available cause you to change the setting?

#PRESS NEXT# for more questions.

(text46k)

- Do "percentage performing" figures indicate that fewer soldiers are performing this task than should be? If so, does the percent which should be performing meet the criterion for high task performance and, therefore, consideration for Institutional training?

- Would the percent performing figure change radically during mobilization? Would the task then become a candidate for training in the Institution.

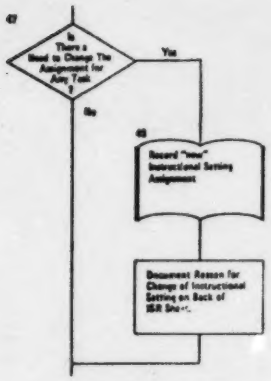
- Are there any job factors unique to this MOS which would cause you to change this instructional setting?

You may have other reasons why the task should not be taught by Self-study. Consider each reason carefully.

#PRESS NEXT#

(text46m) If you decide that a Self-study instructional setting is unsuitable, refer to the Supplemental Guide to determine if the task should be assigned to an Institutional or SOJT instructional setting. If necessary, consult with other subject matter experts or your supervisor to arrive at a suitable instructional setting for the task.

#PRESS NEXT#



BLOCK	COMMAND	TAG	COMMENTS
47a	SHOW	(text47a)	
	DECIDE	block48a, block48e	
48a	SHOW	(text48a)	
	ACCEPT	NEW_S, 1, 3	
	GOTO	block48c, IF S = NEW_S	
48b	SHOW	(text48b)	
	WAIT	block47a	
	GOTO	block47a	

(text47a) TASK /$TASKCODE(TASK)/

Has been initially assigned to /$INSTR_SETTING(S)/.

Is there any reason to change this assignment?

(text48a) Type the number that corresponds to the new instructional setting for /$TASKCODE(TASK)/.

Then #PRESS NEXT#.

1 - INSTITUTION
2 - SOJT
3 - SELF-STUDY

(text48b) Your selection is the same as the current instructional setting.

#PRESS NEXT#

BLOCK	COMMAND	TAG	COMMENTS
48c	SET	FSETTING(TASK) = NEW_S	
	SHOW	(text48c)	
	WAIT	(block48d)	
	GOTO	block48f	
48d	SHOW	(text48d1)	
	WAIT		
	SHOW	(text48d2)	
	WAIT		
	SHOW	(text48d3)	
	WAIT		
	GOTO	block48f	
48e	SET	FSETTING(TASK) = SETTING(TASK)	
48f	NEXT	TASK	
	NEXT	S	
	GOTO	block49a	

(task48c) REMEMBER . . .

It is important that you document the task ID number and the reason for changing the instructional setting. There is a place for this on the back of the ISR Sheet which can be obtained from your supervisor.

#PRESS HELP# for information on preparing comments for others.

#PRESS NEXT# to continue.

(text48d1) In order for the Instructional Systems Development process to work effectively, it is imperative that there be forward and backward communication between the people involved in the process. At some time or other, you have probably complained about the input that has been provided to you. For example, you may have thought that other tasks should have been included in the critical task listing, or that the job performance measures were incomplete or inaccurate. Sometimes, you may have had to do work that should have been preformed in previous steps.

#PRESS NEXT#

(text48d2) It is important that you feed this information back to the appropriate people so that revisions can be made to effect improvement in the end product.

In your research for this step of the Instructional Systems Development process, you may have discovered additional information that you think may be useful to people who will be working in steps that follow this one. If so, it is equally important that you pass this information on to appropriate people.

#PRESS NEXT#

(text48d3) REMEMBER, COMMUNICATION WITHIN THE INSTRUCTIONAL SYSTEMS DEVELOPMENT PROCESS IS CRITICAL FOR EFFECTIVE INSTRUCTIONAL DEVELOPMENT.

- A copy of the ISD COORDINATION SHEET can be obtained from your supervisor. Make sufficient copies to enable you to send one to every individual you wish to communicate with--plus copies for your records.

- Complete the ISD COORDINATION SHEET in duplicate. Send one copy to the individual and attach one copy to the Instructional Settings Package (ISR Sheets).

#PRESS NEXT#

BLOCK	COMMAND	TAG	COMMENTS
INTROa	GOTO	INTROc IF FIRST_TIME > 0	****Subroutine to display introductory material the first time through the loop.
	SET	FIRST_TIME = 1	
	SHOW	(text INTROa)	
	WAIT		
INTROb	SHOW	(text INTROb)	
	WAIT		
INTROc	RETURN		

(text introa) Next, you will review the tasks that have not been assigned to an instructional setting.

To do this, you will reevaluate the "NO" responses to determine if your initial judgment was correct. However, it is important that you DO NOT change your "NO" response unless you definitely think there is a legitimate basis for changing it to "YES."

#PRESS NEXT#

(text introb) For example, when you recorded a "NO" response to a question, such as "equipment needed for training is not available in the unit," you may have been in doubt about your answer. If so, check with your supervisor, a new sample of recent job incumbents, or other subject matter experts to determine if your initial judgment was correct.

#PRESS NEXT#

BLOCK	COMMAND	TAG	COMMENTS
49a	STOP		****See attached memorandum, Guidelines for Producing Results of I.5 in hardcopy.

This memorandum documents the requirement for a hardcopy printout of the Instructional Setting Recording Sheet information, based upon the data collected during execution of the Job Aid I.5 program. The variables and arrays that correspond to each section of the ISR Sheet are written on the attached sample.

TASKS PERFORMED BY SPECIFIC DUTY POSITIONS

IF ISR_DUTY (DP,TASK) = 1 PUT "X" IN APPROPRIATE CELL

IF ISR_DUTY (DP,TASK) = Ø LEAVE CELL BLANK

PERCENT PERFORMING

ISR_%(1) . . . . TO ISR_% (NUMBER_OF_TASKS)

TEST ISR_%E(1) . . . . . ISR_%E (NUMBER_OF_TASKS)

IF ISR-%E(N) = 1 THEN HIGHLIGHT
ISR-%(N) AS AN ESTIMATE (e.g., put an asterisk beside it).

IF ISR-%E(N) = Ø LEAVE ISR_%(N) AS IS.

QUESTIONS 1 THROUGH 14

ISR_QUESTION (1, 1) . . . . . TO ISR_QUESTION(14, NUMBER_OF_TASKS)

IF ISR-QUESTION (Q,TASK) = 1 THEN RECORD "Y" IN THE APPROPRIATE CELL

IF ISR-QUESTION (Q,TASK) = -1 THEN RECORD "Y" AND HIGHLIGHT IT BECAUSE IT HAS BEEN CHANGED FROM A 'NO' TO A 'YES'. THIS WILL ONLY BE POSSIBLE ON QUESTIONS 9 THROUGH 14.

IF ISR_QUESTION (Q,TASK) = Ø THEN RECORD "N" IN THE CELL.

IF ISR_QUESTION (Q,TASK) = $\begin{bmatrix}\text{INITIAL}\\ \text{VALUE}\end{bmatrix}$ THEN LEAVE THE CELL BLANK (99 IN OUR CASE).

(This array should be initialized to a value at the beginning of the program.)

INSTRUCTIONAL SETTING

FSETTING(1) . . . TO FSETTING(NUMBER_OF_TASKS)

IF FSETTING(TASK) = 1 THEN PUT AN "X" IN APPROPRIATE COLUMN IN INSTITUTION ROW.

IF FSETTING(TASK) = 2 THEN PUT AN "X" IN APPROPRIATE COLUMN IN SOJT ROW.

IF FSETTING(TASK) = 3 THEN PUT AN "X" IN APPROPRIATE COLUMN IN SELF-STUDY ROW.

IF FSETTING(TASK) = SETTING (TASK) THEN YOU ARE FINISHED.

IF FSETTING(TASK) ≠ SETTING (TASK) THEN PUT AN "X" IN APPROPRIATE COLUMN AND ROW (ROW 1, 2, or 3) DEPENDING ON THE VALUE OF SETTING(TASK). HIGHLIGHT THIS ENTRY SINCE IT WAS THE INITIAL SETTING SELECTED.